Lectures
ON THE
BRITISH PHARMACOPŒIA.

Delivered before the Members of the Pharmaceutical Society of Great Britain,

BY THEOPHILUS REDWOOD, PH.D., F.C.S.,
PROFESSOR OF CHEMISTRY AND PHARMACY TO THE PHARMACEUTICAL SOCIETY, AND SECRETARY TO THE CHEMICAL SOCIETY.

LECTURE I.

THE advent of the British Pharmacopœia forms an epoch in the history of Medicine in this country. For nearly two centuries and a half the Pharmacopœia of the London College of Physicians has been the authorized guide to which medical prescribers and dispensers throughout the greater part of the British dominions have looked for instruction with reference to the composition and preparation of medicines. For more than a century and a half there has been a separate guide, originating from a different source, and having exclusive authority in Scotland; while in Ireland, for rather more than half a century, the Dublin Pharmacopœia has occupied a similar position among physicians and apothecaries in that country. The existence of these different guides, relating alike to the preparation of medicines for the inhabitants of the same kingdom, and ordering in many instances under the same name preparations differing in composition or strength, has long been felt to be a serious evil; and for this the Medical Council have provided a remedy in the production of the British Pharmacopœia.

Nobody doubts that the publication of this work has been a wise measure for which there was urgent occasion. The book which will now be the only authorized guide on the subject to which it relates "throughout Great Britain and Ireland," has been prepared under circumstances calculated to give to it a high degree of authority. Never before has there been such a combination of talent associated for the production of a Pharmacopœia in this country; and if the measures adopted should be found to have failed in realizing the expectations that have been formed, it will not be from a deficiency of labourers or of labour employed in the work, but rather, it may be, from an error in the opposite direction. Some disappointment, indeed, has already been expressed; but it must be admitted that the committees sitting in the three capitals of England, Ireland, and Scotland, representing the medical practice, and influenced as they would necessarily be to some extent by the peculiarities in the medical treatment which custom has established in those separate parts of the kingdom, have had no easy task to perform in reconciling differences, and producing a rule and guide for medical and pharmaceutical practice that shall be applicable and acceptable throughout the British dominions.

The work has been looked for with great expectations; and now that it has arrived we are all anxious, not only to read, but diligently to study it, and to become acquainted with the substances to which it refers—with its descriptions of drugs, and its processes for the preparation of medicines.

There is no part of the great body of medical practitioners to whom the study of the Pharmacopœia is more interesting and important than it is to the pharmaceutical chemist. He has not only to become acquainted with the composition, the characters, and properties of the medicines which are ordered, but he must study and should thoroughly understand the nature of the changes which occur in their production, the extent of the adaptation of the processes given for the purposes for which they are intended, and the means by which the apparent intentions of the authors may be most effectually realized.

It is with the view of promoting and facilitating the study, the comprehension, and appreciation of the changes which are effected by the introduction of the British Pharmacopœia, that my colleague and myself, at the request of the Council of this Society, are about to deliver a few lectures here during this and next month. It is proposed that I should describe and explain the processes and preparations, both chemical and galenical; while my colleague, Professor Bentley, will describe and explain the organic Materia Medica.

In this lecture I shall confine myself to the chemical preparations, leaving the galenical preparations for a subsequent lecture. My object, of course, will be to show the influence of the introduction of the British Pharmacopœia upon the practice of pharmacy. We have to consider what are the changes this work proposes or is calculated to effect. There are some medicines omitted now which were previously ordered; some medicines introduced now which were not previously recognised; some old medicines designated by new names; and some new medicines called by old names. Moreover, there are new processes, the products of which are not very, or not at all, different from those produced by the processes previously adopted; and there are new or extended or altered descriptions of the medicines referred to in the book.

For the better comprehension of these changes, I have tabulated the results of the comparison of the British Pharmacopœia with the London Pharmacopœia of 1851; and I confine myself here to the London Pharmacopœia, because I am addressing those who have been accustomed to recognise it alone as their authorized guide.

1. *Chemical Preparations in the London Pharmacopœia, 1851, but not in the British Pharmacopœia.*

Acetum destillatum.	Ferri ammonio-chloridum.
Ammoniæ citratis liquor.	Hydrargyri bichloridi liquor.
,, sesquicarbonatis liquor.	,, bisulphuretum.
Arsenici chloridi liquor.	Morphiæ acetas.
Atropiæ sulphas.	Oleum æthereum.
Calamina præparata.	Plumbi iodidum.
Cornu ustum.	Potassæ cum calce.
Cupri ammonio-sulphas.	Potassæ carbonatis liquor.
,, ,, liquor.	Sodæ sulphas.
	Sulphuris iodidum.

There is very little to be found in this list that will cause any feeling of regret. Two or three old friends there may be, but we shall soon be reconciled to the loss of them. Thus, there might perhaps be a word said in favour of distilled vinegar, which for certain purposes, such as the preparation of Mindererus's spirit, may be preferred to the dilute acetic acid that now represents it. But Mindererus's spirit itself is changed, and the new spirit is but the ghost of the old preparation. Like other ghosts, it lacks the essential qualities of the original; nay, it even lacks the spirit of the ghost, for none of the spirit is there, and it is as unlike the true Mindererus's spirit as a glass of vapid distilled water is unlike the sparkling crystal water as it springs from a gushing fountain. Mindererus's spirit, as it used to be, with its agreeable briskness, due to the use of carbonate of ammonia, and its faintly vinous ethereal flavour, due to the use of distilled vinegar, will, no doubt, still have its advocates. The new liquor ammoniæ acetatis is made with the strongest caustic solution of ammonia and strong acetic acid, which is rarely entirely free from sulphurous acid, and never possesses the agreeable flavour of distilled vinegar. There may also be advocates for De Vallengen's solution of chloride of arsenic; but the loss of this preparation may be considered to be pretty well compensated for by the retention of the older and better known Fowler's solution.

With these exceptions, there is nothing in the list of omissions with reference to which there can be much difference of opinion. Who will regret the loss of the old form for the worthless imitation of Dr. James's powder, or the costly and unproductive process for the practically unattainable, or if attainable, unpreservable compound called oil of wine? These may be allowed to pass quietly into oblivion with Cornu ustum and Company.

2. *Chemical Preparations in the British Pharmacopœia, but not in the London Pharmacopœia*, 1851.

Acidum aceticum glaciale.
" nitro hydrochl. dilut.
" sulphurosum.
Aconitia.
Ammoniæ benzoas.
" phosphas.
Antimonii oxidum.
" terchloridi liquor.
Beberiæ sulphas.
Calcis carbonas præcipitata.
" hydras.
" phosphas præcipitata.
" saccharatus liquor.
Chlori liquor.
Chloroformi spiritus.
Collodium.
Digitalinum.
Fel bovinum purificatum.
Ferri arsenias.
" et quiniæ citras.
" oxidum magneticum.
" perchloridi liquor.
" pernitratis liquor.
Ferri peroxidum hydratum.
" phosphas.
" sulphas granulata.
Ferrum redactum.
Hydrargyri iodidum rubrum.
" nitratis acidus liq.
Lithiæ carbonas.
" citras.
Magnesia ponderosum.
Magnesiæ carbonas pond.
Plumbi carbonas.
Potassæ citras.
" permanganas.
" " liquor.
Potassii bromidium.
Santoninum.
Sodæ arsenias.
" " liquor.
Spiritus pyroxylicus rectificat.
Zinci acetas.
" carbonas.
" chloridum.
" valerianas.

This list, which is much longer than the preceding, affords more room for criticism, and more ground for differences of opinion. If fault be found with this list, it will probably be on the ground of deficiency rather than on that of redundancy. The list appears to me to contain a judicious selection of such medicines of the class now under notice as have the strongest claims to recognition.

3. *Old Chemical Preparations with New Names.*

Old Names.	New Names.
Ammoniæ sesquicarbonas.	Ammoniæ carbonas.
Antimonii oxysulphuretum.	Antimonium sulphuratum.
" potassio-tartras.	" tartaratum.
Bismuthi nitras.	Bismuthum album.
Calx chlorinata.	Calx chlorata.
Chloroformyl.	Chloroformum.
Ferri ammonio-citras.	Ferri et ammoniæ citras.
" carbonas cum saccharo.	" carbonas saccharata.
" potassio-tartras.	Ferrum tartaratum.
" sesquioxidum.	Ferri peroxidum.
Hydrargyri ammonio-chlorid.	Hydrargyrum ammoniatum.
" chloridum.	Calomelas. Hydrargyri subchloridum.
" bichloridum.	Hydrargyrum corrosivum sublimatum. Hydrargyri chloridum.
" iodidum.	" iodidum viride.
" nitrico-oxidum.	" oxidum rubrum.
Iodinium.	Iodum.
Magnesia.	Magnesia levis.
Magnesiæ carbonas.	Magnesiæ carbonas levis.
Plumbi oxidum.	Lithargyrum.
Potassæ bitartras.	Potassæ tartras acida.
" hydras.	Potassa caustica.
Potassii sulphuretum.	" sulphurata.
Quinæ disulphas.	Quiniæ sulphas.
Sodæ chlorinatæ liquor.	Sodæ chloratæ liquor.
" potassio-tartras.	" et potassæ tartras.
Spiritus ætheris nitrici.	Spiritus ætheris nitrosi.
Sulphur.	Sulphur sublimatum.

With regard to this list I have not much to say beyond expressing regret that, in addition to the revival of the old names "*calomel*" and "*corrosive sublimate*" for the two medicinal chlorides of mercury, a change should also have been made in the more scientific names of these medicines, by which the term "*chloride of mercury*," which has for so long a time been used to designate calomel, is now made to apply to corrosive sublimate. Any change of chemical nomenclature, as applied to medicines, could hardly have been made at a more unsuitable time than the present; for the whole system of chemical nomenclature is just now undergoing revision by scientific chemists, and great and important changes will, no doubt, shortly be made—indeed, they are now in progress, and will probably render the new scientific names introduced into the British Pharmacopœia as much behind the requirements of modern science as those which have been superseded. It would have been much safer and better to have left the old scientific names of the chemical substances used in medicine unaltered, excepting where it was thought that such names could be altogether dispensed with, as in the cases of calomel and corrosive sublimate.

4. *New Chemical Preparations with Old Names.*

Acidum aceticum.
" aceticum dilutum.
" hydrochloricum dilutum.
" nitricum.
" nitricum dilutum.
" sulphuricum.
Acidum sulphuricum dilutum.
Ammoniæ acetatis liquor.
Magnesia.
Magnesiæ carbonas.
Morphiæ hydrochloratis liquor.
Potassæ carbonas.

These changes are of comparatively little importance, as they only affect the strength of the preparations. I shall have by-and-by to refer again to these changes of strength; at present I merely allude to the effect of retaining the names unaltered when the preparations have been changed. As a rule, I should be disposed to say, with reference to the preparations used in medicine, that, when any important changes are made in the composition or strength of such preparations, they should be distinguished from those previously used by some change of name. I do not think, however, that this rule could with advantage have been applied to any of the preparations in the list before us. If there is anything to regret, it is, with reference to some members of the group, that any change should have been made in the preparations themselves; the names have been rightly left as they were.

5. *Substitutes for Old Chemical Preparations under New Names.*

Pulvis antimonialis for Pulvis antimonii compositus.
Acetum gallicum for Acetum britannicum.
Carbo animalis purif., from bone black. } for { Carbo animalis, from bullock's blood.

In this short list we have an efficient antimonial powder, which can be always produced in a uniform state, as a substitute for the old, inactive, and uncertain pulvis antimonii compositus. We also have purified animal charcoal from bone black as a substitute for the charcoal prepared from blood. These changes are much to be commended; but I am not so sure that the substitution of French vinegar for British vinegar is a judicious change. I have never found any difficulty in getting perfectly good British vinegar, but much difficulty in getting good French vinegar; nor do I think that the so-called French vinegar met with in this country is better in any respect than the best British. The Pharmacopœia says that the vinegar used in medicine is to be "impure dilute acetic acid, prepared from French wines by the acetous fermentation." But I understand that what is generally sold in this country as French vinegar is made in this country, and certainly is not made from French wines by the acetous fermentation. This, however, is not an important matter, for it does not appear that this vinegar is ordered in any of the preparations in the Pharmacopœia, and for what purpose it is retained at all in the Materia Medica I am unable to conceive. The old class of "vinegars" are altogether discarded, and French vinegar alone is retained.

And now, having sketched out the general purport and extent of the changes made in the chemical preparations of the Pharmacopœia, I must direct your attention to some points in connexion with those preparations which appear to claim particular notice.

Acidum aceticum.—The acid ordered under this name is not quite so strong as that of the London Pharmacopœia. It now contains 28 per cent. of anhydrous acetic acid, while the acid of the London Pharmacopœia contained 30·8 per cent. There is no process given for its production, and I think it must be regretted that the example thus set was not more generally followed with other chemical preparations. Besides this form of acetic acid, however, there are three others ordered.

Acidum aceticum glaciale is described as monohydrated acetic acid—that is, anhydrous acid with one atom of water. In this case, in addition to the description, which is given pretty fully, there is also a process given, and from the manner in which this is described it might be inferred that this glacial or monohydrated acetic acid may be readily produced; but anyone who tries will soon discover that such is not the case. In fact, the monohydrated glacial acetic acid cannot be obtained at all by the process given. It may be said that this is not of much importance, as the glacial acid can be obtained in commerce without any difficulty, and cannot be successfully produced upon other than the large manufacturing scale. If this be so, as un-

doubtedly it is, why should the Committee have undertaken to give a process? If they had rested satisfied with describing the preparation they wished to be used, as they have done in the case of acidum aceticum, they would have avoided the inconsistency of describing the product in one part of the work as a body having certain characters and answering to a chemical formula which very precisely defines its composition, while in another part of the work they give a process which fails to yield the product they have described.

Acidum aceticum dilutum is weaker than the diluted acid of the London Pharmacopœia; in fact, it is only about three-fourths of the strength of that acid. One fluid ounce of it is neutralized by 9·6 grains of soda (NaO), while the same quantity of the London acid requires 12·6 grains of the same alkali. It may be remarked here that while the diluted mineral acids —that is, the hydrochloric, nitric, and sulphuric—have been equalized in strength, and made to contain as many grains of the acid in six fluid drachms as represents the atomic weight of the acid in each case, the diluted acetic acid is much weaker than this, and requires more than four times that quantity to represent the same strength.

Acidum hydrochloricum.—This acid is to be rather stronger than that ordered in the London Pharmacopœia, but the difference is slight, and I have therefore not represented it as a new or altered preparation. It is now to have a specific gravity of 1·17, instead of 1·16 as formerly. In the last London Pharmacopœia there was no process given for the preparation of hydrochloric acid, although a good process was contained in the Pharmacopœia of 1836. A process is now again introduced, which, although in some respects a very good one, is in one respect defective. The process of the British Pharmacopœia is practically that of the late Dr. Gregory of Edinburgh; and its peculiarity consists partly in the use of two atoms instead of one of sulphuric acid to every atom of chloride of sodium, so that bisulphate instead of sulphate of soda results from the decomposition; and partly in the dilution of the sulphuric acid with water until it has a specific gravity of about 1·6. The result of thus diluting the sulphuric acid and using it in increased quantity is, that it is less likely to yield sulphurous acid when it comes into contact with organic impurities in the common salt, and that in other respects it facilitates the process and yields a purer product. The apparatus as described in the British Pharmacopœia is here fitted up, and the materials are put together as directed; but in consequence of the unfortunate omission in the directions to which I have alluded, the process, when conducted strictly according to the book, yields no hydrochloric acid. The fact appears to have been overlooked by the writer of the article describing the process, that when the sulphuric acid is used in this state of dilution the hydrochloric acid is not given off without the application of heat. On supplying that omission, however, the process, as you will perceive, will proceed in a very satisfactory manner, and a perfectly good product will be obtained. I do not consider the increase of strength in this acid, as compared with that of the London Pharmacopœia, to be an advantage, but rather the reverse; as it has a greater tendency, in consequence, to throw off vapours when exposed to the air, and there is no purpose that I am aware of to which it is applied where the weaker acid would not answer equally well.

Acidum nitricum.—There are many present, no doubt, who will recollect the nitric acid of the London Pharmacopœia of 1836, and the trouble and annoyance attending its use. We all rejoiced to find that in the Pharmacopœia of 1851 a weaker acid was ordered—an acid easily obtained, easily preserved without undergoing deterioration, which answers every purpose required in medicine, and which can be used without the inconvenience attending the use of the other. The nitric acid of 1851 is admitted on all hands to be the most stable of the hydrates of nitric acid. It is easily produced as a colourless acid, which retains this condition when exposed to the light. It may even be distilled without change, which cannot be said of nitric acid in any other state of hydration. What better acid could be selected for use in medicine? Yet we are now carried back again to the stronger acid of 1836. The nitric acid of the British Pharmacopœia is an acid having the specific gravity of 1·5. It is not a commercial acid, but has to be made specially for our use. It is not obtained in a colourless condition; and although it may be rendered colourless by a troublesome and somewhat difficult process, it cannot be kept in that state, for it is constantly undergoing decomposition under the influence of light, and the result of this decomposition is that it loses strength, and becomes more and more contaminated with the red nitrous gases which are generated. The introduction of this strong fuming nitric acid again into the Pharmacopœia is certainly a retrograde movement. There is no purpose to which nitric acid is directed in the Pharmacopœia to be applied where the acid of the last Pharmacopœia would not answer as well as or better than this.

Acidum sulphuricum is described in the Materia Medica part of the work as monohydrated sulphuric acid, for which a chemical formula (HO, SO_3) is given in accordance with that name. But what, it may be asked by some of our brethren who have not just issued for the chemical laboratory of this or some other institution—what does monohydrated sulphuric acid mean, and what is the body represented by that chemical formula? Does it mean oil of vitriol? because if it does, we know what that is. Well, it must be admitted that it does not mean oil of vitriol, for oil of vitriol is commercial sulphuric acid, and this is something different from that. Then if the "sulphuric acid" of the British Pharmacopœia is not oil of vitriol, and is not a commercial article, which it is not, how is it to be obtained? The Pharmacopœia tells us how to obtain it, for it gives a process for the purpose. This consists in distilling oil of vitriol with sulphate of ammonia, fractionizing the products of distillation, rejecting the first product, and saving the second, which is the acid in question. Now all this presents a greater amount of difficulty than might appear at first sight. To carry the process out as directed is no easy matter. To begin at the beginning, we are told that the oil of vitriol to be thus treated must give no evidence of the presence of arsenic by that most delicate of tests called Marsh's test; and it is doubtful if any oil of vitriol can be met with in this country that will stand this test. Then, if we succeed in finding suitable oil of vitriol for the purpose, the distillation of the acid in glass retorts is a most difficult operation. The difficulty of concentrating oil of vitriol in glass was found to be so great, that manufacturers gave it up, and took to the use of platinum stills at an enormous cost. Yet in that process the water is distilled away from the acid, while the concentrated acid is left in the still. But in the Pharmacopœia process we are directed to distil the acid itself. The apparatus for the purpose is before you, although I do not recommend you to undertake the operation. Manufacturers will, no doubt, be induced to do it at a price; but then the question will very naturally be asked, Is the improvement in the product worth the cost of its production? By simple distillation the acid is deprived of a little sulphate of lead, which the commercial oil of vitriol contains, but this would be precipitated by merely diluting it with water; then by distilling it with sulphate of ammonia it is freed from any nitric or nitrous acids it may contain, and for this purpose the process is certainly efficient. Something more than this, however, appears to have been contemplated in the process, for the product is described as monohydrated sulphuric acid. Now will it realize this description when obtained by the process given? I venture to say that it will not. It will not be monohydrated sulphuric acid, and this is perhaps a fortunate circumstance, for monohydrated sulphuric acid would not be well suited for use in pharmacy. It is an acid which congeals in cold weather, as glacial acetic acid does, and the use of such an acid would be attended with much inconvenience. We are afforded a means of escape from this dilemma, it is true; for after stating that the sulphuric acid to be used in medicine is to be the monohydrated acid, the description goes on to say that it is to have a specific gravity of 1·846. Now this is the specific gravity of an acid weaker than the monohydrated acid. Still the specific gravity given is greater than it will be found easy to obtain, and the question again arises, Why should we be required to use a stronger acid than the acid of commerce, which is strong enough for any purpose to which it is applied in medicine?

Time will not admit of my entering further into the subject of the acids, and I therefore turn now to the alkalies.

Liquor ammoniæ and *liquor ammoniæ fortior* are but little changed, yet they are not exactly as they were. The difference is so small that one wonders why there should be any difference. The specific gravities of the old and new solutions are as follows:—

	Ph. Lond.	Ph. Brit.
Liquor ammoniæ	0·960	0·959
Liquor ammoniæ fortior ...	0·882	0·891

Liquor potassæ and *liquor sodæ* are both rather weaker than they were. In liquor potassæ the difference is so small that it is hardly worth notice, but in liquor sodæ there is a greater difference. The specific gravities of the old and new solutions are as follows:—

	Ph. Lond.	Ph. Brit.
Liquor potassæ	1·063	1·058
Liquor sodæ	1·061	1·047

The two solutions, according to the London process, were made to nearly coincide in density; whereas according to the new process they differ in density, but nearly coincide in neutralizing power.

Potassæ carbonas must be described as one of the new preparations of the British Pharmacopœia. Hitherto the term "carbonate of potash" has been applied in our Pharmacopœia to that very well known commercial article commonly called "salt of tartar," for the preparation of which a process was given in the London Pharmacopœia of 1836. The process then given, and which is practically adopted on the large scale, consists in purifying commercial potash or pearlash by treating it with a small quantity of cold water, which dissolves the carbonate of potash and chloride of potassium, and leaves the greater part of the sulphate of potash which commercial potashes always contain. The solution thus formed is afterwards evaporated until the salt, while constantly stirred, becomes dry in the pan. It constitutes, as is well known, a dry granular salt, which, if exposed for any length of time to the air, attracts water, and becomes first moist and afterwards liquid. If it be well dried in its preparation, and if it be carefully excluded from the atmosphere, it can be kept and used without any great difficulty; and although it is not absolutely pure, it answers every purpose required in medicine.

Besides this so-called salt of tartar, there is a pure carbonate of potash, which used to be, and still might be more correctly, called salt of tartar, because it is made from cream of tartar, or bicarbonate of potash, by the application of heat; and this is usually kept in the anhydrous state for the delicate purposes of chemical analysis.

Now, the carbonate of potash of the British Pharmacopœia is neither the salt of tartar of commerce nor the pure carbonate of potash of analytical chemists, nor any other form of carbonate of potash to be found anywhere else than in chemical books. This new carbonate of potash is represented in the description given of it as containing two atoms of water. This is indicated by the chemical formula ($KO, CO_2, 2HO$); and it is further indicated by the quantity of water it is said to lose on the application of heat—namely twenty-one per cent., and by its neutralizing power when treated with the volumetric solution of oxalic acid. Salt of tartar, on the other hand, contains only about an atom and a half of water, which is equal to sixteen per cent., instead of twenty-one per cent. The difference then is, that the Pharmacopœia salt contains half an atom of water more than is present in the salt of commerce. You may think this a very trifling difference; but in effect it is an important difference. It just constitutes the difference between a convenient and a most inconvenient product. It represents also the difference between the composition of crystallized carbonate of potash, as given in chemical books, and that of the dry, although still hydrated, carbonate as obtained by a practical operation, and in a state in which it is fit for use. The books are right in representing crystallized carbonate of potash as it is represented in the British Pharmacopœia; but to obtain the salt in that state involves considerable difficulty. It can, however, be so obtained in fine, large, transparent prisms, which are so deliquescent that it is as difficult to keep as it is to obtain them.

For *potassæ bicarbonas* and *sodæ bicarbonas*, processes are given which, if it were desirable to make these preparations on a small scale, are quite unexceptionable. The processes are in operation before you, and the apparatus used is similar to that described in the Edinburgh and also in the Dublin Pharmacopœias; in fact, the process appears to be almost literally that of the Dublin College as given in their Pharmacopœia of 1850.

Magnesia and *magnesiæ carbonas* are changed from light to heavy, and processes are given which are perfectly efficient for the production of these varieties of magnesia.

It is important to observe that, in future, when *magnesia* or *carbonate of magnesia* is ordered, the heavy variety is to be used; not the comparatively heavy, but the heaviest of the sort.

Metallic preparations.—Amongst the metallic preparations we have a very good process for emetic tartar, now called

Antimonium tartaratum, which consists in mixing oxide of antimony and cream of tartar into a paste with water, and allowing the mixture to stand for twenty-four hours; then adding more water, boiling for a quarter of an hour, filtering the solution, and setting it to crystallize.

This method of effecting the combination of weak vegetable acids or acid salts with metallic oxides might have been followed with advantage in other cases, where much less efficient methods have been adopted. Thus, for instance, potassio-tartrate of iron, which is now called

Ferrum tartaratum, is directed to be made by heating the cream of tartar and oxide of iron in the presence of a large quantity of water, which is unfavourable to the combination of the metallic oxide with the acid salt. The process given for this preparation is also defective in ordering the solution in its very dilute state, as first produced, to be poured on to porcelain or glass plates, to be dried in scales. This mode of operating would be practically impossible.

Ferri et ammoniæ citras.—The process for this preparation is subject to the same objections that attach to the preceding. There is too much water present when the combination is effected, and the solution, if formed as directed, would be in too dilute a state to be spread on glass or porcelain for scaling.

Ferri et quiniæ citras.—I have not yet fairly tried this process, but I do not think it will yield the pretty salt which has become so firmly established in medical practice.

I must now say a few words with reference to a preparation about which there has been a good deal of discussion lately in the medical and pharmaceutical journals. I allude to the popular medicine called "sweet spirit of nitre." There are great differences in the strength and quality of this medicine as met with in various pharmaceutical establishments, and some discredit has been thrown upon those who make it and sell it, on account of this difference in quality. But I think it has pretty clearly appeared, from the discussion of the subject, that the process given in the Pharmacopœia has been as much at fault as those who have had to apply the process. Spiritus ætheris nitrici, made according to the process of the London Pharmacopœia, might contain any quantity from a mere trace up to probably 7 or 8 per cent. of nitrous ether, according to the quantity of the ingredients operated upon in the process, the form of the apparatus, and the temperature applied in effecting the distillation. We have all been agreed and have long been aware that the process of the London Pharmacopœia was liable to yield very variable results according to the mode of applying it, yet under the most favourable circumstances it has yielded a sweet spirit of nitre which the public, who are great consumers of it, have generally approved of. We have been fully aware of the defects in the processes hitherto used, and were given to understand that the British Pharmacopœia would supply us with a new and greatly improved process. This new process is now before us. It consists in distilling a mixture of spirit of wine and oil of vitriol with nitrite of soda. The process I have no doubt would be a very good one if we had the means of carrying it out as intended; but we are met at once with a difficulty, which is that nitrite of soda is not a commercial article. This difficulty, however, is met in the British Pharmacopœia by a process being supplied for the preparation of nitrite of soda. Unfortunately the process given for the preparation of nitrite of soda does not yield the product we require. I have tried the process myself, and have obtained samples of the so-called nitrite of soda made by the Pharmacopœia process from several manufacturing chemists of the highest reputation, and in every instance I have found it to consist principally of nitrate of soda, with a good deal of carbonate, and a very little nitrite. It is a mistake to call this salt nitrite of soda, or to expect that the process given will yield a product having the composition represented by the formula (NaO, NO_5), which is the formula given in the Pharmacopœia. The nitrite of soda produced by the process of the British Pharmacopœia will be a variable product; and the sweet spirit of nitre produced from it is not likely, therefore, to be uniform in composition or quality. This process for making spiritus ætheris nitrosi is in operation before you, and you will have an opportunity of examining the product, as well as that obtained by other operators. I have compared it with the preparation made by the London Pharmacopœia, and I certainly prefer the latter, as a more agreeable spirit, to which the name "sweet spirit of nitre" more fully applies.

Collodium.—Amongst the new preparations introduced into the British Pharmacopœia is *collodium*, for the preparation of which a process is given; but of this I cannot speak more favourably than of that just noticed. The success in making collodion depends upon the quality of the pyroxylin which enters into its composition. There is some art in producing a good and readily soluble pyroxylin suitable for making collodion. The Pharmacopœia gives a process for making the pyroxylin to be used in the production of the collodion; but on trying the process, I have obtained an insoluble, and not a soluble, cotton. Such a result was just what I should have anticipated; for, in the process given, the strongest nitric and sulphuric acids are directed to be used, which would yield very good gun-cotton, if required as an explosive agent; but it is well known that good gun-cotton is not soluble in the mixture

of ether and alcohol, and that to obtain a cotton that is soluble and suitable for making collodion, the acids should be mixed with a portion of water, and should be used at a certain fixed temperature, with reference to which no instructions are given in the Pharmacopœia.

One other preparation I have yet to refer to, and that is *distilled water*. The description given of the distilled water directed to be used in pharmacy affords a good illustration of what appears to me to be a defect in many parts of the work, and that is, an attempt at too great refinement. We are told that distilled water should answer to the following character among others, namely, "that a fluid ounce of it evaporated in a clean glass capsule leaves no visible residue." Now I should like to see such distilled water made by simple distillation in a copper still, as described in the Pharmacopœia. In the instruction of pharmaceutical pupils I have been accustomed to set them the task of producing such distilled water, as one which they would think very easy, but which experience proves to be attended with considerable difficulty.

Clinical Lecture
ON
CARIES AND NECROSIS OF THE BONES OF THE SKULL.

Delivered at St. George's Hospital,

BY PRESCOTT G. HEWETT, F.R.C.S.,
SURGEON TO THE HOSPITAL.

(*Concluded from p. 207.*)

THE symptoms of diseased bone of the skull vary according to the depth at which the bone is affected.

If the disease is limited to the outer parts of the bone, the pain in the head is soon followed by a more or less diffused swelling of the scalp in the neighbourhood; suppuration ensues; the matter is evacuated; and the state of the bone beneath becomes manifest. In cases where the disease begins on the inner surface of the bone, deep-seated fixed pain is at first the only sign of mischief: sometimes this is accompanied by more or less well-marked brain-symptoms, but there is no swelling of the soft parts so long as the outer table of the bone remains unaffected, and the patient may perhaps die without there having been the slightest suspicion of the state of the bone.

In superficial disease of the bones of the skull, the matter, of which there is generally speaking no very great quantity, finds a ready outlet through the openings in the integuments. But where the bone is perforated in its whole depth, a great part of the matter may accumulate between the bone and the dura mater, and a small portion only make its way towards the skin, which, if unbroken, will present an indolent, apparently well-circumscribed swelling, the main characteristic of which is that it disappears under slight pressure, but soon re-appears, and more or less quickly according to the position of the patient's head. And when this swelling is opened, the matter flows in much larger quantities than would have been expected from the apparent size of the abscess; its escape is not influenced by pressure, but it may be made to stream out by a forced expiration, the mouth and nose being stopped.

Cases now and then occur in which, instead of matter, there is a copious discharge of a thin serous-like fluid going on for weeks and months continuously, then gradually diminishing, and ultimately ceasing altogether, the soft parts becoming sound, and adhering to the bone beneath.

A case in which this peculiar feature was strongly marked first fell under my notice in the early part of 1856. It appeared that about the year 1853 this gentleman was affected with a sore, supposed to be syphilitic, and for which he took mercury in small doses for some ten or twelve months. Subsequently to this he remained perfectly well for eight years, and then, having contracted another sore, he took mercury again, but only for a short time, as his general health soon gave way, and he became exceedingly debilitated. At this period he had a severe attack of otitis followed by suppuration, and shortly afterwards nodes began to make their appearance in different parts of the head; these, however, gradually disappeared. Then came great thickening of the bones, and the whole scalp became so loose that it could easily be raised by handfuls from the skull. The following year, being still very much broken in health, this gentleman went to live by the sea-side, and there he soon recovered so as to be able to go out with the hounds occasionally. In 1849 a soft swelling made its appearance on the side of the head; the skin gave way, and for two years there was a continuous escape of a clear watery-like fluid, which ultimately ceased, and the skin healed. Other swellings of a precisely similar character made their appearance on the frontal, and followed pretty much the same course. In 1853, on blowing the nose, air-bubbles were for the first time noticed escaping through a hole still existing in the middle of the forehead. Towards the latter end of 1854 an abscess formed over the coronal suture, ran its course, broke, and was followed by a copious discharge of the same kind—namely, a thin watery-like fluid,—which still continued when this gentleman fell under my notice. He was then in good health, and in order that he might go about with some degree of comfort, had of late resorted to the expedient of stopping up the hole with a little plug, which he was in the habit of removing when at home to let the fluid out. All this gave him no uneasiness about the head. The quantity of fluid which escaped was estimated at between two and three tablespoonfuls daily, and this had been going on uninterruptedly for at least fifteen months. The bones of the head were evidently still very much thickened, but the integuments were sound, save in a few places where there were some scars adhering to the parts beneath. The small hole whence the fluid escaped was a little below the coronal suture, and about its middle part. There had never been anything approaching to an eruption on the skin; the throat had never been affected, and all the other bones of the body were and always had remained perfectly sound. On one occasion the plug was removed in my presence, and the fluid, which soon began to drop freely, was of a light straw colour, serum-like, and perfectly inodorous.

In a case of necrosis of the frontal bone, M. Pétrequin also mentions that as much as a litre of a serous fluid, of a greyish colour, and most fetid, was poured out daily from several holes leading down to some dead bone in the frontal region. Ultimately the necrosed bone separated; it proved to be the outer surface only of the whole of the frontal bone, which came away bodily, leaving the inner table healthy, and to this the scalp became soundly adherent.

On the other hand, instead of this thin, watery-like fluid, both caries and necrosis of the skull are sometimes accompanied by the secretion of a putty-like substance, which may in different parts, be accumulated in very large quantities. This substance may either be soft, and like fresh putty, or it may be quite hard and friable, like dry putty.

Some time back I took away from the head of an old woman, who for many years had been labouring under syphilis, two large pieces of the frontal bone which were necrosed. These pieces of bone had been exposed for some time, and were perfectly loose; they involved only the outer portion of the frontal, and the granulations beneath were already extensively skinned over. Lying between the granulations and the bone was a layer, several lines in thickness, of a dry, friable, putty-like substance, which was most fetid. It adhered closely to the bone, with which it came away. To the naked eye it was evidently composed of two distinct portions; one in contact with the bone, and the other which had been in contact with the granulations; the former was of a yellowish colour and opaque, the latter of a pearly colour, and somewhat transparent. Microscopically, the former consisted principally of dried, puriform materials, and the latter was wholly made up of layers of pavement epithelium.

In disease involving the whole depth of the bone, thick layers of the same putty-like substance may be found between the bone and the dura mater. Such was the case in a patient under the care of M. Gosselin. Wherever the bone was diseased, there the dura mater became covered with thick layers of a greyish, semi-concrete substance, most fetid, and firmly adherent to the membrane beneath. The patient, a female, aged fifty, was evidently sinking from hectic fever, which M. Gosselin thought might be due, in part at least, to the retention of some fetid pus between the diseased bone and the dura mater. The trephine was, therefore, applied; but, instead of fetid pus, the inner side of the bone was found covered with thick layers of a half-concrete substance, of a greyish colour, and most fetid odour. The removal of this substance through

the trephine-hole being found impossible, a second, and then a third, crown of trephine were applied; but such was the tenacity of this substance that it could not be removed from the dura mater. Two days afterwards the dura mater had put on a reddish, fungous appearance, and the patient was somewhat better. She went on thus improving slightly for some few days; after which thick layers of the putty-like substance were found extending far and wide under the skull. Five more crowns of the trephine were, therefore, applied in the neighbourhood, and the intervening bone was cut away, laying bare the thickened secretion in its whole extent. Five weeks afterwards the trephine was again applied at the upper and outer part of the wound, where some fresh putty-like substance appeared to be accumulating. Three weeks afterwards came intense pain in the head, diarrhœa, and hectic fever. The disease of the bone was evidently spreading, and another operation was proposed; but this time the patient steadily declined having anything further done. She continued much in the same condition for a fortnight, and then died worn out. The gap in the skull produced by the removal of the bone included the greater part of the right parietal, a small portion of the frontal, and a little bit of the temporal; the corresponding dura mater, covered by healthy granulations, was but slightly thickened in one spot, and the brain and its membranes were healthy throughout.

Once set up, there is no foreseeing to what extent disease of the bone of the skull may proceed, or to what mischief it may ultimately give rise. A portion of bone becomes affected, and this after a time gets well; but, the same cause being at work, other parts of the skull become involved, and thus, on and on, the patient may drag out a miserable existence for years together; and especially may this be the case in necrosis of the skull, in which years and years may elapse before the final separation of the bone. And all the while the patient is exposed at any moment to have his life brought suddenly to a close by various causes manifestly connected, more or less closely, with the diseased state of the bones.

And first of all, as to the soft parts in connexion with the diseased bone, such patients with fistulous openings in the integuments are especially liable to erysipelas of the scalp, which, worn out as the patient is by long-continued suffering, sometimes ends fatally.

Then, as to the bones themselves, both caries and necrosis of the skull may lead to fatal hæmorrhage, should the disease chance to lie in the neighbourhood of any large vessel. Thus the trunk of the middle meningeal artery or one of its large branches may suddenly give way. This is a point of great practical importance, and one the possibility of which we should not lose sight of in cases of diseased skull. Should there be a corresponding opening in the integuments and in the skull, the blood will make its way outwards, and with a little care the nature of the accident and the source of the hæmorrhage may be ascertained. But should the disease have attacked the inner surface only of the bone in the neighbourhood of the vessel, the blood poured out between the bone and the dura mater will give rise to compression of the brain, the true cause of which it will be impossible for us even to guess at unless the outer surface of the skull chance to be diseased in other parts.

In a preparation in the museum of St. George's Hospital, the inner side of the anterior inferior angle of the parietal is affected with caries, involving the groove for the trunk of the middle meningeal artery. This is the only part of the skull affected on its inner surface, and here even the disease does not extend beyond the size of a shilling. On the outer part of the skull, however, are here and there a few small spots, not bigger than fourpenny pieces, of superficial ulceration of the bone. Unfortunately there is no history of the case; but it is very evident that the middle meningeal artery in close contact with a piece of bone thus affected might have given way suddenly.

And we know that this actually did happen in the case, related by Dr. Watts of New York, of a man who was suddenly seized with hemiplegia on the right side, and sank in five days. At the post-mortem examination an extensive extravasation of blood was found between the bone and the dura mater, arising from the left middle meningeal artery, which had been eaten into as it lay in contact with a carious portion of the parietal not bigger than a sixpence.

Rapidly fatal hæmorrhage may also, at any moment, take place from the sudden giving way of the internal carotid artery in connexion with caries of the petrous portion of the temporal or of the body of the sphenoid.

A man, aged forty-two, after divers and sundry injuries about the head at different periods of his life, was suddenly seized, without any apparent cause, with violent pain in the head, followed by discharge from the left ear. This went on for the period of six years, with occasional exacerbations, for which he was at different times admitted into the Hôtel Dieu, at Paris, returning to his work as soon as he was somewhat better. He was admitted into the hospital for the last time in December, 1835. There was then perfect paralysis of the left facial nerve, which had existed for two years; the discharge from the ear was still going on, and the patient was very much sunken. In March, 1836, a gush of red arterial-looking blood suddenly, while the patient was talking, took place from the mouth, the left nostril, and the left ear. The bleeding stopped in about a couple of minutes; but it recurred on the following day, stopped again, and then in the evening came on so copiously that the poor fellow died in a few minutes. The after-death examination showed extensive caries destroying the greater part of the petrous bone. The coats of the corresponding part of the internal carotid were thin and rather soft, and this vessel at its fore part, and about midway in its course in the carotid canal, presented an ulceration of a line in diameter. The lower part of the left lateral sinus was obliterated.

Another case of hæmorrhage, also from ulceration of the carotid artery in connexion with caries of the petrous bone, has been published by Mr. Toynbee in the "Medico-Chirurgical Transactions" for 1860. The two cases are in some respects singularly analogous.

In caries of the petrous bone, fatal hæmorrhage may also arise from the bursting of the large venous sinuses lodged in this bone.

A woman, aged fifty, came under the care of M. Huguier on the 26th of September, 1851, for disease of the right ear, which had existed about two years. There was considerable swelling of the parts around, and a copious and fetid discharge from the meatus, which was extensively destroyed; the concha was filled with a soft and very vascular fungus like growth. Two days afterwards M. Huguier pulled out of the ear a foreign body, which proved to be the end of a gutta-percha bougie, introduced by the patient for the purpose of keeping her ear open. On the 5th of October copious bleeding took place from the ear; it stopped, however, but recurred on the 7th, and led to the death of the patient in a few hours. The temporal bone, and especially its petrous portion, was extensively diseased; the bleeding had proceeded from the petrosal sinuses and from the gulf of the jugular vein, which was largely laid open at its back part. Softening of the cerebral substance had taken place opposite to the diseased bone, and this had allowed some of the blood to pass into the lateral ventricle, and thence into the other ventricles.

As it was with the lateral sinus in this case, so might it be, under similar circumstances, with any other of the large venous sinuses of the skull.

Caries and necrosis of the skull may also, at any moment, give rise to inflammation of the diploic veins, or of the large venous sinuses, in contact with the diseased bone; and hence the liability of the patient to a sudden attack of purulent infection with low typhoid symptoms, the origin of which may escape our notice, unless on our guard.

In caries and necrosis of the skull, the life of the patient may also be brought suddenly to a close by the spreading of inflammation to the inner parts. And this spreading inwards of mischief may arise suddenly, and without any apparent cause, notwithstanding that the disease may have been going on for years.

The intra-cranial mischief may be of different kinds. The most frequent is that of inflammation of the cerebral membranes. Most commonly the mischief simply spreads, as it does in contusion of the bone, from the dura mater to the cavity of the arachnoid, and from thence to the subarachnoid tissue and pia mater. But in some cases the cavity of the arachnoid remains perfectly free, and the inflammatory effusion takes place in the subarachnoid tissues. Such cases, you will recollect, are also sometimes found in injuries of the skull.

Next in order as to frequency comes abscess in the cerebral substance, independently of any mischief in its membranes.

A man, aged thirty-five, was admitted into St. George's Hospital, under the care of Mr. Cæsar Hawkins, in July, 1856. He had had syphilis about five years before, and three years back was under treatment in the hospital for diseased bone of the skull, since which pieces of bone had from time to time come away. Lately he had been under treatment at a dispensary for some weeks, and during the last three nights it appeared that he had been delirious. When admitted into the hospital, he was in a great state of debility, with a weak, quick pulse, and a vacant expression about his eyes; he was also very slow in

answering even the simplest questions, and there was an evident tendency to dropping off unless roused. He continued much in the same state, gradually becoming more and more comatose, and he died on the following day. In the integuments of the forehead there were two ulcers, about an inch and a half from the supra-orbital ridge, and a little to the right of the mesial line. These ulcers led down to diseased and carious bone: the caries was superficial in one part, but in another it included the whole thickness of the bone, a portion of which was dead and quite loose. There was no inflammation of the veins of the diploë. The external surface of the dura mater corresponding to this part of the frontal was very dark and shreddy, and covered with soft fibrin. A careful examination showed a minute opening in this membrane, which was, however, blocked up by adhesions to the parts beneath; the inner surface of the dura mater around this opening was very dark. The surface of the convolutions was everywhere dry and smooth. The veins and the sinuses within the cranium were all quite healthy. At the upper surface of the right hemisphere, and occupying about its anterior two-thirds, was a large collection of dark and exceedingly fetid pus, with great softening of the brain-tissue all round. Indeed, the whole brain itself was softer than natural, and the corpora striata and optic thalami were of a leaden hue. All the ventricles were filled with turbid fluid, in which were floating some masses of soft fibrin. The other viscera presented nothing remarkable.

Such a termination is not a very uncommon one in long-continued disease of the bones of the skull. Two cases of this kind are alluded to by Mr. Stanley, in both of which "an almost sudden termination of life occurred whilst portions of the frontal bone were slowly exfoliating."

Inflammation spreading inwards from the bones may also lead to softening of the brain. Of this a well-marked example has been published by Mr. Henry Lee. The patient, a farmer, aged forty two, was admitted into the Lock Hospital on the 2nd of October, 1858, and died on the 12th of November following. It appeared that for six years he had been suffering from severe pain in different parts of his head. Extensive portions of bones had exfoliated at various periods, principally from the right side of the upper part of the skull; the original seat of pain corresponded, however, to the upper part of the occipital bone. On the 4th of November this patient became paralytic on the whole of the left side. Talking over the case with Mr. Henry Lee, I advised the application of a trephine over the anterior inferior angle of the right parietal, thinking that, with such a state of things, the middle meningeal artery might possibly be in contact with diseased bone, and might in consequence have been eaten into. The trephine was applied, but nothing was met with to account for the symptoms. The patient sank eight days after the first appearance of the paralysis. The bones of the skull were extensively diseased, and over a large surface they had altogether disappeared. A circumscribed portion of the inner table of the right parietal bone was apparently necrosed; but the outer table in this situation retained its vitality, and one of the pieces of bone removed by the trephine was within a quarter of an inch of this spot. The upper part of the occipital corresponding to the original seat of the pain was carious. Corresponding with these diseased portions of bone, the dura mater was covered by a tenacious, brown, semi-fluid material, and the adjacent surfaces of the arachnoid were glued together by a similar effusion. The brain itself presented in different parts various stages of red softening; the disease of the brain was, however, most advanced in those parts which corresponded to the disease in the bone, and immediately opposite the carious portion of the occipital the brain-substance was softened down to the consistence of cream. The skull-cap belonging to this case, and drawings of the diseased brain, are in the museum of St. George's Hospital.

And last of all, the patient's life may be brought to a close by protrusion of the brain. Hernia cerebri, it is true, occurs very rarely either in caries or in necrosis of the skull. The dura mater under the diseased bone, being for the most part thickened and strengthened by chronic inflammation, is, as it were, prepared to meet and to resist any undue pressure. But, on the other hand, cases now and then occur in which the dura mater, instead of being thus thickened by the mischief in its neighbourhood, is destroyed, and hernia cerebri follows.

Thus it happened with a woman aged thirty-eight, who in the year 1856 was admitted into the Lock Hospital, under the care of Mr. Lane, frightfully disfigured from extensive ulcerations about various parts of the face. A large portion of the os frontis, of a circular form, and more than three inches in diameter, was also exposed and dead, the scalp over it having been completely destroyed. She had been suffering for many years from syphilis in its various forms, and was reduced to the very last stage of cachexia. She gradually recovered from this horrible state in about six months, and everything appeared to be going on well, until the dead bone happened to fall off one day while she was stooping down. The sequestrum included a large portion of the entire thickness of the frontal, together with the ossa nasi and the ascending nasal and alveolar processes of the left superior maxillary bone. The surface of the dura mater thus left bare was in a healthy granulating state, except at one part, of the size of a half crown piece, where it was of a dirty-white colour, and had evidently lost its vitality. This piece of the dura mater soon gave way, and then followed hernia cerebri, which in three weeks covered the eye, and reached as low down as the angle of the mouth. The protrusion was then cut away, and other portions of the brain which soon followed were similarly dealt with. And thus matters went on for about six weeks, when paralysis of the right side of the body made its appearance, and the patient sank in about a week after this.

Protrusion of the brain was also the immediate cause of death in the boy whom I have already mentioned as having had the whole of the temporal bone removed bodily after necrosis. He died four days after the removal of the bone; and protruding into the cavity thus left was a considerable portion of the corresponding part of the brain, which formed a kind of fungus. The inferior horn of the left lateral ventricle was drawn out of its course, and the brain at this part was softer than natural, but the rest was sound.

In M. Huguier's case, too, to which I have also referred, a portion of the cerebrum was found passing through the temporal bone, and a bit of the cerebellum had also made its way through the petrous bone, the greater part of which had been destroyed by caries. The surrounding cerebral substance was softened, and the lateral ventricle laid open.

In the last two cases, the protrusion of the brain occurred at the base of the skull, a very unusual situation for hernia cerebri. Such a protrusion escaping through the meatus might easily be mistaken for a fungous growth, or exuberant granulations, and unwittingly pulled away. And we must bear in mind that in caries or necrosis of the base of the skull protrusion of the brain may likewise be met with in another most unusual situation—in the nasal cavities,—and that here, too, hernia cerebri is liable to be, and has been, mistaken for a polypus, and dealt with accordingly.

Hernia cerebri may also occur years after the separation of the sequestrum. A boy, when about five or six years old, had a fit during the cold stage of an ague, and fell with his head upon a fire, by which, before he could be removed, he was horribly burned. For the following ten years his mother used to apply simple dressings to his head, and he worked in a blacksmith's shop. When sixteen years old, as he was striking very violently with a heavy hammer, the sequestrum, including nearly the whole of the left parietal with the adjacent portions of the frontal and occipital bones, fell from his head. The same treatment was persevered in, and he continued about his work, enjoying perfectly good health, but the granulations did not heal. He was sent to the hulks at Portsea, when about thirty, and after he had been there about eight months, during which he had worked hard and been quite healthy, he had severe catarrh, with headache affecting principally the injured side, and fever and delirium. From these he recovered; but, about four months afterwards, having been in the meantime nearly well, he was seized with very acute pain in the head: a large tumour appeared beneath the sore, and he became paralytic on the right side. Ultimately the tumour burst, and he died after a considerable quantity of cerebral substance had been discharged.

And now as to the treatment of caries and necrosis of the bones of the skull: that, fortunately, differs now-a-days widely from the treatment resorted to formerly. In by-gone years the practice was to pursue and destroy the diseased bones wherever they existed: the more extensive the disease, the more praiseworthy the efforts of the surgeon. And in one case you may read of the whole parietal having been thus removed; in another, of the whole of the frontal, including its orbitar arches, having been got away by means of divers and sundry instruments. But such cases dwindle into nothing when compared with the case of Méhée de la Touche, wherein he glories in that he had been able to cure an extensive caries of the skull in the course of fifteen months, during which time he had applied no less than fifty-two crowns of trephine, twenty-seven of which laid bare the dura mater. But, as I said, such treatment is fortunately by-gone; and with us the rule is that we are in caries of the bones of the skull not to interfere, in the

way of an operation, unless the disease happens to be, which is rarely the case, limited to a very small area. And in necrosis, the rule is, save in exceptional cases, to wait patiently until the diseased bone is thoroughly loose. True it is that for this we may have to wait for months, and even years, but nevertheless surgical interference is not to be attempted, even with full knowledge of all the manifold risks which I have described, and which we know that patients must run in such protracted cases. By waiting patiently until the bone is loose, large portions may either come away, or be removed, without any risk. In the museum of St. George's Hospital, there are two pieces of necrosed bone, making up nearly the whole of the perpendicular portion of the frontal, which I removed, some time back, from an elderly woman, who, shortly afterwards, left the hospital quite well. And in one of the patients now in the hospital, large portions of the frontal bone have, at various periods, come away. This has been going on for twenty-nine years, but the disease has now stopped, and an examination of the parts shows a thin, transparent, newly-formed skin, through which the irregular, nodulated, and eburnated surface of the healed bone, with more or less marked excavations and shelving margins, may easily be felt.

In exceptional cases, as I said, the application of a crown or two of the trephine may become necessary—that is, when there is not sufficient space for the matter to make its way outwards, and which may thus become pent up between the bone and the dura mater. And occasionally, too, you may have to cut away pieces of overhanging bone, in order to remove a necrosed portion which is otherwise quite loose.

But in every case of diseased bone of the skull, especially must we bear in mind that by active surgical interference we may lead the patient into those very dangers which, by operating, we hope to save him from. I have seen the application of a single crown of trephine followed by inflammation of the membranes of the brain and death.

We are then to be very careful how we interfere surgically with such cases, but medically we may do much good; and for this all medical treatment must, as a matter of course, be based upon the peculiar condition which in each individual case may have led to the bone becoming diseased. In every case great care must be taken to keep the patient up by every possible means, and especially must great care be taken to avoid, as far as may be, every risk of erysipelas, and other liabilities which I have enumerated.

OBSERVATIONS
ON
GASTRO-COLIC FISTULA.

By CHARLES MURCHISON, M.D., F.R.C.P.,

PHYSICIAN TO THE LONDON FEVER HOSPITAL, ASSISTANT-PHYSICIAN AND LECTURER ON PATHOLOGY AT THE MIDDLESEX HOSPITAL.

In a memoir published in 1857, in the *Edinburgh Medical Journal*, I called the attention of the profession to the occasional occurrence of fistulous communications between the stomach and the colon; and from an analysis of thirty-three cases, collected from various sources or observed by myself, I endeavoured to throw some light on the pathology and symptoms of this interesting lesion. It was shown that in the great majority of cases the fistula is a secondary result of cancer, or of simple ulcer of the stomach, more commonly of the former. As the disease extends through the coats of the stomach it occasionally excites plastic peritonitis, resulting in intimate adhesion to the colon; and if the ulcerative process be not arrested, it may perforate not only the coats of the stomach, but also those of the colon, without the contents of either viscus escaping into the peritoneal cavity. In twenty-eight out of the thirty-three cases the disease appeared to advance from the stomach to the colon in the manner now described. In only two cases was there reason to believe that the disease had commenced in the colon, and involved the stomach secondarily; while in the remaining three cases the fistula was apparently the result of an abscess, or of softened tubercular matter, at first external to, but ultimately bursting into, both viscera. When a communicating aperture has been formed between the stomach and colon, there is no barrier to prevent the contents of the one viscus passing into the other: fæcal matter from entering the stomach; crude and undigested food from passing into the colon, and so being voided per anum.

These results are what might have been naturally expected from the new condition of the parts; and they are what we actually find. Fæcal vomiting and the presence of undigested food in the stools, or lienteria, are the characteristic symptoms of gastro-colic fistula. Fæcal vomiting occurs in all cases of gastro-colic fistula, where the opening is sufficiently large to permit the regurgitation of fæces into the stomach, and when there is no disease producing great obstruction at the pylorus. When the pylorus is obstructed, there is no fæcal vomiting for two reasons: first, because the stomach becomes overloaded with its own contents, and the vomited matters consist entirely of food; and secondly, because all the food which is not vomited passes at once into the colon, and none enters the small intestines to form fæces, to be regurgitated into the stomach through the fistula. In cases of lienteria depending on gastro-colic fistula, portions of undigested food may be observed in the stools within an hour or two after it is swallowed. This fact admits of demonstration, by administering with the food a pill containing some colouring substance, such as cochineal or indigo. In a case which I had an opportunity of seeing some years ago in the Edinburgh Infirmary, under the care of Dr. W. T. Gairdner, and where there was reason to believe that the patient suffered from gastro-colic fistula, with constriction of the pylorus, pieces of ham were found in the stools two hours after being swallowed, and indigo pills were given with a similar result. In one remarkable case, recorded in my essay, a converse observation was made: fluid enemata thrown into the rectum entered the stomach, and were vomited.

There are several minor symptoms of the lesion under consideration, such as a fæcal odour of the breath, great emaciation, a peculiar alteration of the voice, &c., which need not occupy attention at present. Suffice it to say, that a careful study of the cases already on record leads to the conclusion, that the concurrence of lienteria and fæcal vomiting, following on the symptoms of cancer, or of simple ulcer of the stomach, renders the diagnosis of gastro-colic fistula almost certain.

Since the date of my essay, a case of gastro-colic fistula, under the care of Dr. W. T. Gairdner, has been published by Mr. de Fabeck in the *Edinburgh Medical Journal* for July, 1858. The patient was a man aged forty-seven. The primary disease was cancer, probably originating in the stomach. There were two fistulous communications between the stomach and the colon. One of the openings into the colon was about the size of a shilling. Although the pylorus was free from disease and perfectly patent, no fæcal vomiting occurred during life; but the absence of this symptom is accounted for by the circumstance that the fistulæ were somewhat tortuous, and greatly obstructed by cancerous deposit, especially at the stomachal end, so as to prevent almost entirely the passage of matters either one way or the other. No careful examination of the stools was made during life, but it was noted that for several days before death they consisted of little else than fluid matter, "containing whitish masses exactly like curdled milk," the patient's diet at the time consisting almost entirely of milk. The condition of the parts which prevented fæcal vomiting would, no doubt, also prevent the passage of solid food in any quantity from the stomach into the colon. It is probable that a similar condition of the parts existed in those cases of gastro-colic fistula alluded to by Bamberger,* in which fæcal vomiting and lienteria were both absent. For the development of either symptom it is, of course, necessary that there should be a free communication between the two viscera.

Dr. Habershon, in the second edition of his excellent work on "Diseases of the Abdomen," records two cases of gastro-colic fistula. (pp. 177, 181.) In both the primary disease was cancer of the stomach; in both the disease involved the pylorus; and in both the fistula appears to have merely permitted the passage of a probe. It is not surprising, therefore, that there was no fæcal vomiting in either case. Still one of the patients is said to have "vomited dark, offensive matter of almost fæcal odour." The characters of the stools are not described in either case.

The two following cases possess some additional features of interest:—

Through the kindness of Mr. Morris, of Colchester, I had an opportunity in 1860 of seeing the first of the two patients whose cases are here given. For the particulars of her history I am indebted to Mr. Morris. The fact of the symptoms of gastro-colic fistula being preceded by pain at the epigastrium, vomiting, and hæmatemesis, taken in connexion with the favour-

* Virchow's Handbuch der Path. und Therap. Bd. vi., Abth. i., p. 312.

able course of the malady, clearly points to simple ulcer of the stomach as the primary disease. Although no opportunity has been as yet afforded of making an anatomical examination of the parts, the diagnosis of gastro-colic fistula is placed almost beyond doubt by the coexistence of fæcal vomiting with lienteria. The remarkable feature of the case is the length of time that the patient has survived the formation of the fistula. Of eleven cases collected in my memoir above referred to, where the duration was ascertained, ten died within eight months after the first symptoms of the fistula; one only surviving for two years and three months. In the case about to be narrated, however, the patient has already survived the formation of the fistula upwards of four years; while the great improvement in the symptoms gives reason to hope that the disease has been undergoing a spontaneous cure. Such a termination of the case, so far as I am aware, would be unique.

Eliza S——, aged thirty-three, belongs to a very scrofulous family, and has herself for twenty years been the subject of lateral curvature of the spine, which only ceased to increase about five years ago. The patient is the victim of all sorts of hysterical symptoms, and all her statements must be taken with the reservation necessary in such cases. In the year 1858 she began to suffer from intense pain in the epigastric region, accompanied by vomiting of her food. The pain was always increased by eating, and relieved after vomiting; but she had often a week or ten days of constant retching, accompanied by a peculiar hoarse barking noise. These acts of retching brought up sanguinolent mucus, and occasionally—particularly at the catamenial periods—considerable quantities of blood. After these symptoms had lasted for some months, fæcal vomiting suddenly ensued. This Mr. Morris discredited for some days, until he chanced to see it occur. At the same time, he discovered that portions of undigested food, such as toast and white of egg, were passed from the rectum within ten minutes after they were swallowed, being mixed up in the stools with solid fæces. The patient suffered much from fetid eructations. From Christmas, 1859, until she came under my notice at the end of September, 1860, she passed no stools, with the exception of one or two small dejections of dark hardened scybala, almost all the fæcal matters being voided by the mouth. The vomited substances contained portions of fæculent matter as large as an almond, and often not unlike an almond in shape. The patient lost flesh, but was far from being greatly emaciated.

The condition now described persisted throughout the year 1861, but at the close of this year she began to pass occasional stools per anum; and during the following year the vomiting was less frequent and less often fæcal, and the fetid eructations were less troublesome. Since the commencement of 1863 the patient has only vomited fæcal matter once or twice, and then in small quantity. Once or twice she has vomited a bloody fluid at the catamenial periods. Before the fæcal vomiting ceased, it was observed that the fæculent masses in the vomited matters gradually became smaller. The patient's general health has greatly improved, so that she is able to earn her livelihood by needlework; and according to the statement of her friends, she is soon to be married.

For the details of the next case I am indebted to Dr. C. R. Bree, physician to the Essex and Colchester Hospital, who attended the patient in February, 1860, in consultation with Mr. Joseph Partridge, of Colchester. The case is remarkable on account of the complete occlusion of the colon beyond the site of the fistulous opening, from which resulted fæcal vomiting but no lienteria. The nature of the disease which led to the formation of the fistula is rather obscure. From Dr. Bree's account of the post-mortem examination, it was evidently not cancer. The obstruction of the colon, and the absence of disease in the mucous membrane of the stomach, might seem to indicate that the disease had commenced in the large intestine; but Dr. Bree's impression, from an examination of the parts, was that the constriction of the colon was the "result, and not the cause, of the fistula." And I am inclined to think that he is right in considering that the disease did not commence in the colon. Indeed, in the absence of cancer or of any history of dysentery, it is difficult to understand how the stricture could have resulted from primary disease of the colon. It is quite conceivable that a simple ulcer of the stomach may have proceeded to perforation, and to the formation of a circumscribed peritoneal abscess, which ultimately burst into the colon; not, however, before the surrounding plastic peritonitis had produced traction and matting together of the intestines and a constriction of the colon. It is also possible that an abscess, with circumscribed peritonitis, may have formed external to both stomach and colon, and after a time burst into both of these viscera. In the twelfth volume of the "Transactions of the Pathological Society" (p. 85) I have recorded a case where a circumscribed cavity in the abdomen communicated by fistulous openings with the colon, duodenum, and gall bladder, and also with the external surface through the abdominal parietes. Here the colon was very constricted at the site of the opening, although there was reason for believing that the first link in the chain of pathological events was the escape of a gall-stone by ulceration through the fundus of the gall-bladder. There can be little doubt that constriction of the bowel occasionally arises from external adhesions with angular inflection at the point of adhesion.*

Mrs. W——, aged fifty-three, had complained for about a year of irregularity of the bowels, and occasionally of tenderness at the epigastrium with slight sickness. Latterly she had lost flesh and strength, but still her symptoms were not sufficiently serious to induce her to have recourse to medical advice until about six weeks before her death. At this time she began to suffer from obstinate constipation, for which aperient medicines were employed in vain. When seen by Dr. Bree on the 2nd of February, it was noted that the patient had had no evacuation of the bowels for three weeks. During the same period she had vomited every second or third day a large quantity of fluid of a decidedly fæcal odour. After each attack of vomiting she had experienced relief. She had an anxious pinched expression of countenance, but with the above exceptions she had no very urgent symptoms. She took her food as usual, and got up every day. The pulse was 80, and not weak. The urine was clear and acid; its specific gravity was 1·030 and it contained neither albumen nor bile. On examination there was found a hard, slightly movable, epigastric tumour, situated below and a little to the right side of the xyphoid cartilage. Pressure caused uneasiness in this situation, but not much pain. The abdomen was flat and flaccid, and returned the normal tympanitic sound on percussion everywhere, except in a space extending two or three inches to the right of a line drawn from the xyphoid cartilage to the umbilicus. In an upward direction this dull space was continuous with the hepatic dulness. The patient expressed great disinclination to take medicine, and a pill containing aloes and strychnine having been rejected after a second dose, all further remedies by the mouth were discontinued. An injection of cold water thrown up through a tube passed thirty-eight inches into the bowel produced no fæcal discharge. The treatment was now confined to the administration of jellies and farinaceous food by the mouth, with the injection daily into the bowel of a pint of strong beef tea (containing the elements of a pound of beef), to which a few drops of laudanum were added. The bowels remained constipated to the last, and not a drop of the nutritious enemata was ever returned. On the 11th of February the patient had another attack of sickness and vomited a large quantity of semi-fæcal matter. She gradually sank and died on the 16th.

On examination of the body after death it was ascertained that the tumour felt during life was formed by the matting together of the intestines at the part in question. The transverse colon was inseparably adherent to the pyloric end of the stomach and to the first portion of the duodenum. The stomach was much dilated and thrown upwards, so as to press upon the left lung. It contained a large quantity of the same kind of fluid fæcal matter as the patient had vomited during life. On emptying the stomach there was found, close to the pylorus, an opening as large as a sixpence, forming a direct communication with the interior of the colon. When the finger was passed from the colon into the stomach this opening appeared to be separated from the normal opening into the duodenum merely by a narrow band of membrane. The gastro-colic orifice was surrounded by muscular fibres, so as to have all the appearance of a sphincter. There was no indication of any disease of the mucous membrane of the stomach, and no trace of cancer anywhere, but there was "total occlusion" of the transverse colon immediately beyond the site of the opening.

Wimpole-street, Feb. 1864.

* See Rokitansky's "Pathological Anatomy," Syd. Soc. Transl., vol. ii., p. 49.

DR. THOMAS E. HEADLAM, of Newcastle-upon-Tyne, who occupied a prominent position in his native town as a physician and a member of the corporation, died on the 18th inst., at the advanced age of eighty-six. He was an active member of the local parliament, and a strenuous supporter of the Whig interest. His name is not associated with any medical discoveries or writings; but he was highly respected, and is deeply lamented.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum, et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. GEORGE'S HOSPITAL.

FIBRO-CELLULAR TUMOUR OF THE ANTERIOR MEDIASTINUM, EXTENDING UPWARDS INTO THE NECK; DEATH IN AN ATTACK OF DYSPNŒA.

(Under the care of Dr. BARCLAY.)

IT will be found on reference to almost any work on diseases of the chest, that no information is afforded on affections of the mediastinum. This may be attributable to the rarity with which anything abnormal is there discovered, beyond ordinary affections of the heart and lungs. The diagnosis between a fibrous tumour of the mediastinum and an aneurism would require great tact on the part of the physician, who should not forget the possibility of the occurrence of the former. Abscesses spontaneously arise in the anterior mediastinum, as in four cases described by Guntner in 1859; and they are liable to involve the pleura or pericardium, and even to induce pyæmia. An instance of dermoid cyst in the anterior mediastinum is related by Cordes. A fibrous tumour as large as an egg was removed from the anterior mediastinum by Rochard; and Wiedemann found the same cavity filled with layers of solid exudation. None of these instances, however, is so remarkable as the following, where a growth the size of a cocoa-nut filled the anterior mediastinum, resting upon the pericardium below, reaching as high up as the thyroid cartilage, and compressing the trachea at its middle almost flat, which was the cause of the great and fatal dyspnœa. No doubt the tumour had been growing for some time, but it was only six weeks before admission that a shortness of breath was first noticed. Laying open the trachea afforded no relief.

Robert R——, aged twenty-five, admitted August 24th, 1863, in a state of collapse, having been bled for a sudden attack of pain about the larynx with alarming dyspnœa. He was a labouring man, well formed. For six weeks he had felt shortness of breath on lying down to sleep; he paid little regard to this symptom, however, as it was confined to the night, and did not interfere with his work by day. He had been much worse the last week, and now had slight cough and some dysphagia. It was only a few hours before admission that he was suddenly attacked in the manner mentioned. His habits had long been intemperate, but he had never had syphilis. Sixteen months ago he had an abscess in the pharynx, with much discharge, as a consequence of scarlatina. He had been in the hospital eight months before his present admission, for rheumatism. A turpentine fomentation was applied to the chest, and ether mixture ordered. His respiration was noisy and difficult; the face flushed; pulse soft and frequent; back of pharynx red; uvula broad and bifid. He got much better under treatment with antimony and calomel, with beef-tea diet; and his respiration became almost natural.

On the 31st August he had a second paroxysm of dyspnœa, preceded by abdominal pain; and again a similar attack on the 3rd September. On the 4th, it was noted that he had been up all night with dyspnœa and harassing cough. Each inspiration was accompanied by a wheezing sound, the head being thrown back each time; cough frequent, with frothy expectoration; pulse small, 120; skin natural. He could walk about the ward, and was generally up and dressed. He now swallowed quite easily. Antimony with calomel and opium was continued, and in the paroxysms small blisters were placed at the top of the sternum. On the 5th, laryngoscopy showed the epiglottis and vocal cords tumid and red, as from chronic inflammation. None of the physical signs of aneurism were discoverable. On the 16th, a severe fit of dyspnœa occurred, from which suffocation seemed imminent. Tracheotomy was performed by the house-surgeon, but the patient died shortly afterwards.

Autopsy, sixteen hours after death.—When the sternum was about to be raised, unusual resistance was experienced, as if from adhesions on its inner surface. A large mass was then discovered occupying the anterior mediastinum, and dividing the heart from the sternum. The mass was larger than an ordinary cocoa-nut. It had the sternum for its anterior boundary; while behind, it reached to the trachea and great vessels, as well as part of the pericardium. The pleuræ formed the lateral boundaries. Inferiorly the mass was moulded upon the upper part of the pericardium, which also entered into its posterior limit; while in the upward direction the mass reached as high as the middle of the thyroid cartilage. The front and sides of the larynx and trachea were thus embraced quite to the bifurcation. At about the middle of the trachea the lateral compression was such as to reduce the section to the capacity of a button-hole, with the long diameter in the antero-posterior direction. On section, it appeared that the texture of the growth was that of a fibro-cellular tumour; and under the microscope a vast number of nuclei were seen with fibrillating cells, and a various intertwinement of fibrous tissue. The growth was of a light-brown colour, hard, and elastic. The viscera were normal in the chest and abdomen, except that there were some very minute nodules, like millet-seed, on the peritoneum, of the same nature as the large tumour.

GUY'S HOSPITAL.

BRIGHT'S DISEASE; GLOSSITIS AND ŒDEMA GLOTTIDIS.

WE publish the following cases for the purpose of illustrating the occasional coexistence of laryngeal mischief with disease of the kidney.

Joseph B——, aged forty-eight, was admitted into Lazarus ward on the evening of the 14th August, 1863, suffering from glossitis, his tongue protruding from his mouth and filling it. There appeared no immediate danger of suffocation, but word was left with the nurse to call the surgeon on any increased effort in breathing. He was found dead in the morning.

Autopsy, eight hours afterwards.—The body presented no remarkable appearances. The tongue was enormously swollen, and filled the mouth. The palate was œdematous; the glottis in continuation with the palate was much swollen from œdema beneath the mucous membrane. The œdema of the glottis appeared sufficient to close the chink. The kidneys were very much diseased, small, granular, and covered with cysts. All the other viscera were healthy.

ACUTE LARYNGITIS, WITH ŒDEMA; DEGENERATED KIDNEY; EPILEPSY.

(Under the care of Dr. BARLOW.)

Matilda S——, aged seventeen, was admitted Feb. 15th, 1854, and died on the 16th at midnight. She was a sempstress, and had been ill with epileptic fits for six weeks. During the intervals she did not completely recover. She had severe pain in the course of the sciatic nerve. On the 11th urgent dyspnœa came on, but without any dysphagia.

Autopsy, twenty-six hours after death.—The ventricles of the brain contained about half an ounce of serum; the fauces were congested, and covered with tenacious mucus; the arytenoepiglottidean folds were prominent, œdematous, and very much congested; so also was the epiglottis. The whole of the interior of the larynx was covered with a delicate white layer, which was easily separable from a deeply congested membrane. The trachea was granular, congested, and covered with a tenacious mucus; the bronchi were filled with frothy mucus. The kidneys were exceedingly small, and composed of several masses of white, firm tissue, with scarcely any secreting substance remaining. Their weight was three ounces. Several cysts were also observed in the kidney; the left ureter was very much dilated above.

About a year ago a man was admitted into Guy's Hospital with dyspnœa and Bright's disease of the kidney, for which the trachea was opened, but without any relief. It was considered afterwards that the larynx was healthy, and the stridor due to cerebral influence.

In connexion with this subject it may be mentioned that, in a paper by Dr. Addison "On the Disorders of the Brain con-

nected with Diseased Kidneys," published in the "Guy's Hospital Reports" for April, 1839, he pointed out that the stertor accompanying the sudden attack of coma is very peculiar, and in a great measure characteristic of this form of cerebral affection connected with renal disease. It has not by any means, he observes, in general the deep, rough, guttural or nasal sound of ordinary apoplexy. It is sometimes slightly of this kind, but much more commonly the stertor presents more of a hissing character, as if produced by the air; but, in inspiration and in expectoration, striking against the hard palate, or even against the lips of the patient, rather than against the velum and throat, as in ordinary apoplectic stertor.

Provincial Hospital Reports.

CHESTER GENERAL INFIRMARY.

CASE OF DIFFUSED FALSE ANEURISM, SPRINGING FROM A DILATATION OF THE DESCENDING AORTA; DEATH FROM DYSPNŒA; AUTOPSY.

(Under the care of Dr. POWELL.)

THE notes of the following case were furnished by Dr. Lewis Brittain, house-surgeon:—

D. S——, aged thirty-seven, brickmaker, admitted Oct. 6th, 1863. He was an out-patient in March last, complaining of cough, and pain in the left side shooting into the shoulder. He only attended two or three times, and was lost sight of until admission. He then stated that about eight weeks previously he noticed a small tumour over the left shoulder-blade, which grew to the size of an egg in a fortnight, and became painful and throbbed. It went on growing rapidly, extending downwards. His breathing became very short and laboured, and he was troubled with a tickling cough. On admission, a tumour, the size of a half cricket-ball, but more oval, was situated between the posterior margin of the scapula and the spinous processes of the vertebræ. The scapula seemed raised and pushed outwards. There was distinct impulse all over the tumour, but no bruit or thrill to be heard or felt. Heart-sounds and area of dulness normal; to the left of the sternum dulness over the second and third ribs; tubular breathing; feeble respiration inferiorly and laterally on the left side, louder than normal over right lung. Has a peculiar barking cough; no expectoration. No pain in the tumour except after it has been handled; no pain or tenderness in the back, except on one occasion for a few hours. In sleeping he can lie flat down, and on the tumour. Pulse small and frequent, equal in both wrists.

Oct. 28th.—The tumour has grown very much during the last fortnight, and is now about the size of half a melon. Cough very troublesome.

Nov. 6th.—Has been walking about up to the last two or three days. Great pain in the tumour, and he passes very bad nights.

8th.—A sudden attack of dyspnœa came on early this morning, and returned in paroxysms during the day. At these periods respiration was very noisy and prolonged, resembling a "bray;" in the intervals much frothy phlegm was expectorated. Sinapisms and dry cupping were employed to relieve the dyspnœa and pain in the chest, and he took a little gin and beef-tea.

9th.—A very bad attack about four P.M.; face livid, and all the extraordinary respiratory muscles at work. He died about eight o'clock next morning.

Autopsy, twenty-six hours after death.—The tumour appeared smaller than it was during life. The following were the dimensions:—Round the base, twenty-four inches; from above downwards, ten inches; transversely, nine inches. On opening the thorax, the lungs and heart were found in normal position. On displacing the lungs an immense tumour presented itself, occupying the whole posterior part of the left thorax, to which it adhered, and projecting to the size of an orange on the right of the spinal column. The pericardium contained about two ounces of serous fluid. Heart and valves perfectly healthy. The arch of the aorta was dilated up to an inch beyond the origin of the left subclavian, and at this point an aneurismal pouch commenced, the size of a mature fœtal head. The internal coat of the aneurism was roughened from osseous plates and yellowish patches, and there was a small piece of rib-bone, about an inch and a quarter long, found loose in the sac. On removing the tumour, the left sides of the second to seventh (inclusive) dorsal vertebræ were found absorbed for one-third of their thickness, and about as much on the right side of the second, third, and fourth. The fifth and sixth ribs on the left side, with the lower border of the fourth, and upper of the seventh, were entirely absorbed between their attachments to the vertebræ and their angles, and thus a perforation was formed in the posterior wall of the thorax, four inches and a half in transverse, and four inches in vertical diameter. Through this aperture the contents of the sac had passed backwards; the effused blood was extravasated behind the ribs, extending upwards about three inches from the lower border of the fourth rib, and downwards about two inches below the seventh. The lungs were emphysematous at the borders, but generally crepitant; right lung highly congested; lower lobe of left condensed. The liver was considerably enlarged and congested; granular on section. Spleen three times its normal size. The kidneys congested; due proportion between cortical and tubular portions. Thin sections taken from the inner lining of the dilated aorta exhibited under the microscope osseous fibres and fatty granules.

The treatment was merely palliative; at first digitalis and cannabis indica, then chloric ether and digitalis, and latterly compound spirit of sulphuric ether.

Dr. Powell called attention to the absence of bruit or tremor in the tumour, and to the freedom from neuralgic pain, notwithstanding the formidable erosion of the vertebræ and ribs. The cough was characteristic, although the voice was never affected. There was no dysphagia complained of, and no special physical signs, except slight dulness on percussion, and the bronchial respiration over the left lung. The diagnosis was mainly arrived at from the evidence of mechanical obstruction within the thoracic cavity, taken in connexion with the pulsating tumour behind, the impulse of which coincided with the heart's systole. The radial pulses were of equal force, and gave no clue save from their feebleness contrasted with the heart's forcible impulse. Dr. Powell ascribed the absence of bruit to the distension of the aneurismal pouch with coagula, of which there were twenty-seven ounces. The case was probably one of rheumatic inflammation, with subsequent degeneration and rupture of the arterial tissues.

NORFOLK AND NORWICH HOSPITAL.

ANEURISM OF BOTH POPLITEAL ARTERIES, TREATED BY COMPRESSION; CURED.

(Under the care of Mr. FIRTH.)

FOR the following report we are indebted to Mr. Charles Williams:—

George C——, aged twenty-seven, a well-formed, muscular, and healthy-looking farm-labourer, was admitted in January, 1861, on account of stiffness and pain in the right knee. On examination, the joint was found to be swollen, and in the popliteal region there existed a globular pulsatile tumour, the size of a large orange. It expanded equally in every direction; a bruit de soufflet was well marked; and the pulsations were strong over the whole swelling, and 84 a minute. Pressure on the vessel above diminished the volume of the swelling, and extinguished the sounds and impulse. The arterial system was in other respects in an apparently healthy condition, the heart's murmur being normal, and the pulse exceedingly regular. The patient complained of a dull aching pain in the neighbourhood of the knee-joint, which much interfered with sleep, and was becoming constant.

The history of the case is, that seven weeks prior to admission the man noticed that his right knee was somewhat rigid and painful, and that it became more so every day, and ultimately compelled him to cease from working, which he did about a fortnight before he presented himself at this hospital. He attributed his disease, not to injury, but to arduous work on which he was engaged—pulling up beet-root from land which was particularly hard and dry. Ten years ago he had syphilis, and since then has suffered from several attacks of muscular rheumatism.

Compression of the femoral artery by means of Dr. Carte's apparatus was at once commenced with, and steadily persevered in up to the evening of the thirteenth day, at which time, after a few hours of great agony, the aneurism ceased to pulsate. From this time he progressed favourably, and took his leave of the hospital a month later, in excellent health, the tumour being small and soft, and entirely free from anything like pulsation or bruit.

On the 25th of May of the same year he was re-admitted with a vibrating swelling in the left popliteal space, not so large as

an egg, and which possessed all the signs of an aneurism. Symptoms of its approach were observed by the patient five weeks from the day he was dismissed the hospital.

The compression treatment was adopted and followed out in a similar manner to that pursued on the former occasion, and with equal success; for on the eighteenth day pulsation had ceased, and the tumour had become perfectly solid. No pain whatever preceded the act of consolidation, as in the former instance.

Discharged cured a fortnight later.

Aneurism of both popliteals in the same subject is a very unusual circumstance. In 137 cases of aneurism of that artery given by Dr. Crisp,* 11 only were affected with the disease in both hams; the ligature was resorted to in 10; and compression in 1: all were cured. In addition to these I can find but four other cases recorded, two of them mentioned by Mr. Tufnell,† one of which occurred in a man aged twenty-seven, in whom also a general aneurism existed. All were cured by means of pressure. The second case of duplex aneurism was also in a man, aged fifty-two; ligature of both femoral arteries was had recourse to, but with an unfavourable result. The third case, published by Mr. Gibbs, of Exeter,‡ appeared in a man aged forty-two, in whom deligation of the femorals effected a cure. The fourth case is related by Mr. Lowe,§ whose patient, aged twenty-seven, was not only possessed of two popliteal aneurisms, but likewise had two aneurisms on his left femoral artery. Amputation of this limb, midway between the femoral and inguinal aneurisms, became necessary in consequence of the giving way of the former. Compression accomplished a cure of the remaining two. Instances are not wanting of individuals who have been the subjects of numerous aneurisms. Sir Astley Cooper examined the body of a man who had seven; and Tyrrel tied the left popliteal of a person who was afterwards found to possess seven. Pellatan‖ records a case in which he counted sixty-three, varying from the size of a filbert to that of a pullet's egg; whilst Cloquet¶ informs us of an individual whose arteries were found studded with aneurismal tumours. It is somewhat singular that syphilis may be traced in the history of many cases of aneurism, though Rokitansky is inclined to believe that "the formation of aneurism demonstrates the pre-existence of a peculiar crasis of the blood," and that the concurrence of syphilis, and some other diseases, such as gout, mercurial cachexia, &c., with it, is purely accidental. Now, if there is a disease more than any other which is likely to give rise to "an anomaly of the blood-crasis which may give origin to an aneurism," that disease surely must be syphilis. However, there is certainly some close connexion between the two diseases, and hospital surgeons have no doubt long ere this noticed it. Mr. Tufnell** has, and he observes: "I know not whether syphilis has aught to do with the conferring of constitutional tendency to arterial disease, or whether marks of suppurating bubo are to be found more generally in men and women-kind than ordinary experience would point out; but certain it is that the majority of the cases of external aneurism that I have seen have had this complication."

STOCKPORT INFIRMARY.

DISLOCATION OF THE FEMUR INTO THE OBTURATOR FORAMEN; REDUCTION FOURTEEN WEEKS AFTER THE ACCIDENT.

(Under the care of Mr. BIRD.)

THE details of the following case have been furnished by Mr. H. Stanley Gale, house-surgeon.

John W——, labourer, aged thirty, a strong muscular man, admitted Nov. 7th. Says that while wrestling fourteen weeks ago he felt something give way at his left hip-joint. He was unable to put his foot to the ground, and was confined to his bed for a fortnight. The only medical man who was called in ordered a "strengthening plaster." The patient does not give a lucid account of his symptoms at the time of the accident.

On admission, the lower extremities were measured from the anterior superior spine of the ilium to the inner malleolus, and the left leg was found to be about one inch and a quarter longer than the right. The trochanter could be felt, but was not so prominent as in the normal state. The hip was well rounded, but the left buttock somewhat flattened. The knee was slightly bent. On standing, the body was bent a little forwards. The foot pointed directly forwards. The limb was not abducted. The patient did not complain of any pain in the joint, and could walk with tolerable ease with a walking-stick. Whenever any movement of the limb was made, a distinct cracking sound as of something giving way could be heard even one or two yards from the patient.

Nov. 9th.—Chloroform was given, and the ordinary mode of reduction for dislocation of the femur downwards having been tried for some minutes, and no apparent effect ensuing, the limb was "manipulated," when it returned to its normal position with a distinct crack. The limbs were measured, and found to be of uniform length, and symmetrical.

* Diseases of the Bloodvessels, p. 226.
† Treatment of Aneurism by Compression, pp. 11, 132.
‡ THE LANCET, vol. ii. 1832.
§ Medical Gazette, vol. ii. 1862. ‖ Clinique Chirurgicale, vol. ii.
¶ Pathologie Chirurgicale, 1831. ** Op. cit.

Reviews and Notices of Books.

On the Influence of Mechanical and Physiological Rest in the Treatment of Accidents and Surgical Diseases, and the Diagnostic Value of Pain. A Course of Lectures delivered at the Royal College of Surgeons of England in the years 1860, '61, and '62. By JOHN HILTON, F.R.S., F.R.C.S., Surgeon to Guy's Hospital. 8vo, pp. 499. London: Bell and Daldy.

THE lectures which were delivered by Mr. Hilton at the College of Surgeons, and which are collected together in the present work, are already familiar to the profession in consequence of their publication in the pages of THE LANCET, and it might at first sight appear a work of supererogation to do more than simply draw attention to the volume; but there are so many points of interest and importance connected with this subject, and it has been handled in such a comprehensive and painstaking manner, that we hesitate not to make a critical analysis of the book.

We must say Mr. Hilton was fortunate in choosing such an interesting subject as the Influence of Rest in the Treatment of Disease, embracing as it does so wide a range of questions connected with physiology, anatomy, and the therapeutics of surgery. For although the principles which are enforced with such pertinacity have long been recognised by every surgeon making any pretensions to scientific knowledge, there are occasions when they seem to be forgotten, and it cannot be denied that it is necessary from time to time for those possessing the weight of authority to impress upon our minds even the most palpable truths; and when the doctrines inculcated are illustrated in a forcible manner by practical facts, they are listened to with as much interest as though they were almost entirely novel.

Mr. Hilton has made good use of the large opportunities which he possessed, and has shown in a pleasant and able manner how much Nature is to be relied upon, and what a valuable agent is rest in the most serious and troublesome surgical maladies. We may say that he has gone through the whole domain of surgery as far as there is any relation to his subject; and he who reads this book will be more than ever convinced of the truth of the principles avowed, and of the mischief done by a too meddlesome surgery.

The work consists of eighteen lectures, in each of which certain matters connected with the great subject in question are elaborately and carefully considered. In the first lecture Mr. Hilton demonstrates the means adopted by Nature to secure a state of quiescence to the various viscera, and shows how pain has a beneficial object, and how rest is the fosterer of repair.

In the second lecture are some observations of great ingenuity regarding the physiology of the cerebro-spinal fluid. The author has satisfied himself beyond a doubt that there is an aperture underneath the cerebellum, between it and the medulla oblongata, thus allowing the fluid to pass from the interior of the brain to the spinal canal; and hence he inculcates a fact of great practical value relating to spina bifida, and that is, not to draw off the whole of the fluid from the latter, as the interior of the head would be thereby affected, and fatal results be in-

duced; but merely to evacuate so much fluid as would relieve the spina bifida of its state of tension.

In the three following lectures the author considers at great length the important subjects of disease and injuries of the brain and spinal cord, and points out the necessity of rest and the way in which it acts beneficially. His remarks on concussion of the brain, if containing nothing particularly new, are full of sound sense and practical value.

Lectures VI. and VII. are devoted mainly to the consideration of abscesses and their treatment. Mr. Hilton's method of opening deep-seated abscesses near large bloodvessels is described at length. Instead of plunging in a sharp bistoury, he makes a cut through the skin and fascia; then, introducing a director down to the site of the abscess, runs a pair of blunt dressing forceps along the groove, and thus tears open the abscess. In this way any serious injury to deep-seated vessels is prevented.

In the three following lectures the highly important subject of joint disease is discussed. The most interesting part of this is the minute detail of the anatomical distribution of the nerves to the various joints and to the tissues surrounding them; and Mr. Hilton fails not to point out, with especial emphasis, that there is a great design manifested by the same nerves being distributed to a joint, to the muscular apparatus used for its motion, and to the skin over the insertion of the muscles.

In Lectures XI. and XII. are described the cutaneous and muscular nerve distribution in relation to the pleura, and the influence of mechanical and physiological rest in diseases of the pleura and pericardium; and in the same manner reference is made to the anatomy of the nerves of the urino-genital organs and rectum, and the effect of rest in the treatment of diseases attacking those parts. The remarks regarding the painful ulcer of the rectum are extremely good and practical.

Nearly the whole of the remainder of the work is taken up with the consideration of diseases of joints and the osseous structures; and most of the important points connected with their pathology and treatment are discussed fully, ably, and, we think, fairly. We may, for instance, refer to the highly important question of the propriety of opening abscesses connected with diseased joints. This subject is discussed in no spirit of dogmatism; but, after employing sound argument, Mr. Hilton comes to the conclusion, which most surgeons of experience will endorse, that, as a rule, the opening of abscesses connected with diseased joints should be deferred as late as possible.

It is difficult to overrate the importance of the subject treated of in these lectures; for, as we before stated, although most surgeons recognise in theory the value of rest, and reliance on the efforts of nature in the most serious diseases and injuries, it seems necessary that from time to time they should be forcibly reminded of this great truth. Mr. Hilton has done so in a manner which cannot fail to be of great use to the present generation of surgeons, and which is highly creditable to himself.

The views propounded by Mr. Hilton might, at first sight, appear to be a kind of protest against the practice so frequently adopted now-a-days of excising joints; but, in reality, excision of the joint ends of bones affected with long continued and intractable disease is merely a part and parcel of the treatment so energetically recommended by the author, when such operation is adopted in proper cases. The removal of a portion of necrosed bone, or the excising of the carious surfaces of an articulation, is, after all, nothing but the withdrawal of a source of irritation both to the joint and to the system at large; and the subsequent adaptation of the two healthy cut surfaces, with the substitution of perfect repose of the operated limb for a period of several weeks or months, is simply the carrying out of those principles which Mr. Hilton enforces, and which the profession now generally recognises.

We can commend the work in the highest terms. It is most carefully written, beautifully illustrated, and well suited to the daily wants of the busy practitioner.

Topics of the Day, Medical, Social, and Scientific. By JAMES ANSLEY HINGESTON, M.R.C.S., &c. London: Churchill and Sons. 1863.

IN this book we have very many subjects touched upon in a lucid, straightforward manner. The several essays appear to us to have been collected from journals and serials. It may be that some are here printed for the first time; others we well remember to have read before in the pages of the *Psychological Review*. The most important essays are those "On Atmospheric Phenomena in Relation to the Prevalence of Asiatic Cholera," "On the History and Practice of Vaccination," "On Hypochondriasis," and "On Ethnological Psychology." These titles, however, give but a faint idea of the scope of the author's lucubrations, which touch upon "Cleopatra's Death," "The Death of Horace," "The Indian Rebellion," &c. We can recommend the book for perusal by such as are in want of a volume of instructive but desultory reading.

THE TRICHINA SPIRALIS.

To the Editor of THE LANCET.

SIR,—In your number of the 23rd ultimo I read with much interest Dr. Müller's contribution, and your remarks on the disease produced by the above worm. A question has often arisen in my mind in connexion with this subject, which I think deserves examination—namely, Is "measly pork" the only article of human food which may produce this condition in the human subject?

When engaged six or seven years ago in the examination of the nervous system of the haddock I was much struck by an appearance I frequently met with in the larger nerve trunks. These at different points were slightly enlarged and flattened; the enlargements being oval in shape and irregularly scattered along the course of the nerve. On examining these enlargements with the microscope I found them to consist of groups of worms, from six to twelve in number, similar in many respects to the Trichina spiralis, but more highly organized, presenting, besides many other differences, a distinct oral and anal aperture and intestinal tract. They were enclosed in a fibrous-looking capsule, which could be readily burst by slight pressure. They were confined to the nerve trunks and principal branches, at least I failed to detect them either in the spinal cord or muscular system. Should these be similar in their habits to the Trichina spiralis, it is evident we may have here another source of danger, as haddocks dried and smoked are very often eaten raw.

While on this subject I would beg to make one more remark. Professor Owen, in describing the habits of the Trichina spiralis, says, "The fully developed trichina is a filiform worm occupying the alimentary canal, and giving birth to young trichinæ, which pierce the walls of the intestines, and on reaching the muscles become capsulated."

This, I humbly think, is scarcely a satisfactory explanation. I am rather of opinion that the ova or germs of the worm get into the blood, probably through the absorbents, and on reaching the muscular system, and there finding material suitable for their growth, become gradually developed into the capsulated and free trichinæ. Of course this is purely theoretical, but I think it is only by some explanation similar to the above that we can account for the Trichina spiralis being confined to the muscular system, and the one above described to the larger nerve trunks.

I am, Sir, your obedient servant,

Dundee, Feb. 1864. JAMES ROBIE, M.D.

OXYGEN GAS.—At a recent meeting of the Academy of Sciences at Munich, Baron Liebig recounted various experiments which proved clearly that oxygen is not only evolved from the atmosphere by plants, but also in tolerably large quantities by decomposition of water in the bodies of flesh-eating animals. He thinks that a knowledge of this fact will throw quite a new light on the processes of nutrition and digestion.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 27, 1864.

THE influence of hospital construction and regulation over the recovery of the patients admitted to them—the causes of increased mortality, and the respective shares due to difference in treatment, surgical or medical, and inequality of hygienic conditions—are questions of great importance, and are just now uppermost in men's minds. The discussions in the French Academy on the higher rates of recovery in London than in Paris hospitals; the commission of French officials appointed to examine and report on our hospitals; the differences which have arisen in respect to the reconstruction of St. Thomas's Hospital,—are all circumstances which have provoked minute examination of these questions, with the result of showing that our information on the subject is yet very defective. Miss NIGHTINGALE brings an important contribution to our knowledge in a new edition, for the most part rewritten, of her "Notes on Hospitals."

No one has studied the great subject with which this important book* deals so thoroughly as its authoress. Miss NIGHTINGALE has given her life to the study of hospitals and hospital organization, nursing, and the government and teaching of nurses. She has not only read and observed after the ordinary fashion, but she has devoted unceasing energy, ubiquitous experience, unexampled opportunities, and never-tiring labour to this one task. She has passed again and again through all the grades of personal experience—at home and abroad, in city and country, in hospitals of town and camp; she has before her all the known facts which have been collected thus far, and possesses great natural gifts of intelligence and singular powers of analysis to guide her through the ever-accumulating load of plans, figures, and details which overwhelm the technical parts of the subject.

Miss NIGHTINGALE has a great command over terse phrases, which she uses with telling effect, sometimes almost to the dismay of those whose souls are attuned to the sober diction and brown-suited dulness of the treatises which have appeared on such subjects up to this time. Two French authorities—M. HUSSON and M. BLONDEL—have lately issued formidable volumes on the subject; and it is surprising to see how much more deftly the lady handles her ponderous theme, how completely she moulds her style to her mood, and how little she is embarrassed by the heavy load of plans, elevations, registers, and returns under which the usually vivacious Frenchman labours slowly with official gait. Miss NIGHTINGALE'S "Notes on Hospitals" is the most instructive and complete treatise on hospital construction which has yet appeared; yet anyone who takes it up at random and reads the first half-dozen sentences will be reluctant to lay it down before he has gone quite through it. No small part of this charm is due to the human interest which pervades the whole: from first to last she is thinking, and she makes us think, of the end to which the means is subordinate. While she is talking of brick-and-mortar, lavatories, rooms and windows, walls and sections, to her mind is always present the figure of the sick patient, and every line is instinct with compassion. It shines through all the dulness of the dryest details, and glorifies the work by its influence, which is felt unceasingly, yet nowhere obtrusively expressed. The very first lines of the preface arrest attention; and they strike in some sort the keynote of the volume, and set us thinking. "It may seem a strange principle to enunciate as the very first requirement in an hospital that it should do the sick no harm. It is quite necessary, nevertheless, to lay down such a principle, because the actual mortality in hospitals, especially in those of large crowded cities, is very much higher than any calculation founded on the mortality of the same class of diseases amongst patients treated out of hospital would lead us to expect."

Here is ample food for thought—matter very suggestive of inquiry; and knowing well the serious researches on which the whole book is based, we read on in order to appreciate the facts to which this conclusion obviously has reference. We soon find that Miss NIGHTINGALE has her mind fixed upon a very remarkable table, showing the mortality per cent. in the principal hospitals of England, which was worked out by Dr. FARR, and which is presented in his Appendix to the Registrar-General's last Annual Report, recently published. This table exhibits figures which are in themselves so impressive and startling, and call for so much explanation, that we cannot do justice to the argument, nor will our readers see the full force of the *primâ facie* conclusions which may be drawn from them, except by actually mastering the figures.

Principal General Hospitals in England and Wales, 1861.
(*Special Hospitals are excluded from this Table.*)

——	Number of Hospitals.	Inmates.	Average Number of Inmates in each Hospital.	Deaths.	Mortality per Cent.
Total Hospitals ...	80	8535	107	6220	72·88
Hospitals containing—					
300 Inmates & upwards	5	2090	418	2101	100·33
200 and under 300	4	913	239	838	91·78
100 and under 200	22	2898	132	2041	70·43
Under 100	49	2634	54	1240	47·08

At a mere superficial reading, or with a little wilful intent, it is not difficult to misunderstand the mere statistical significance of this table, and to reject the mortality of 100 per cent. as a fiction and a juggle. But very little attention will cause anyone to see that this is a mode of estimating mortality by the number of deaths which each bed gives annually, and is a more equal and safe way of determining mortality than by estimating it per head from the patients passing through the hospital, who stay in hospital for very varying periods; since the occupation of the bed per annum may be taken to be a more constant term than the duration of each patient's residence in hospital. The average number of patients per bed per annum is 10: so that those who wish to reduce the statement to that form may easily do so by multiplying the second column or dividing the fifth by that factor. Reading it in its present form, which is that which Dr. FARR holds to be the nearest to accuracy (from statistical reasons), it follows that in an hospital containing 300 inmates each bed in the course of the year gives one death; and that the deaths per annum diminish pretty re-

* Notes on Hospitals. By Florence Nightingale. Third Edition, Enlarged and for the most part Rewritten. London: Longman. 1863.

gularly in the ratio of the number of sick collected in one focus, so that in hospitals under 100 the mortality is one-half of this, and two beds barely give a death in a year. Miss NIGHTINGALE gives in the text a table drawn up by the Registrar-General which presents a similar series of figures from another point of view, and to this also we must beg the attention of our readers.

Mortality per Cent. in the principal Hospitals of England. 1861.

	Number of Special Inmates on Apr. 8, 1861.	Average Number of Inmates in each Hospital	Number of Deaths in the Year 1861.	Mortality per Cent.
In 100 Principal Hospitals of England...	12709	120	7227	56·87
24 London Hospitals	4214	176	3838	90·84
12 Hospitals in large Towns	1870	156	1555	83·16
35 County and important Provincial Hospitals	2248	90	886	39·41
30 Other Hospitals	1136	38	457	40·23
13 Naval and Military Hospitals ...	3000	231	470	15·67
1 Roy. Sea Bathing Infirm. (Margate)	133	133	17	12·78
1 Dane Hill Metrop. Infirm. (do.)	108	108	14	12·96

Miss NIGHTINGALE'S remarks touching this table are as follows:—

"However the great differences in the death-rates may be explained, it cannot be denied that the most unhealthy hospitals are those situated within the vast circuit of the metropolis; that the next lower death-rate takes place in hospitals in densely populated large manufacturing and commercial towns; and that by far the most healthy hospitals are those of the smaller country towns. These results are quite reliable, and are preferable to those derived from individual hospitals; otherwise it might be stated that the death-rate of certain hospitals situated in large towns is so enormous that every bed is cleared out in the year, and in some of them once in about nine months. Facts such as these (and it is not the first time that they have been placed before the public) have sometimes raised grave doubts as to the advantages to be derived from hospitals at all, and have led many a one to think that in all probability a poor sufferer would have a much better chance of recovery if treated at home."

This clear and cutting language brings home the lesson which the figures seem to teach. The apparent conclusions are very grave, and must make us think over our work very carefully; but a little analysis will suggest considerations which show that the dead figures may not be telling us all the truth. It has been already urged in a paper by Dr. GUY* that the class of cases treated in the different hospitals varies so greatly that any collection of figures treating them as homologous units fails in the very essence of its assumption. Thus Dr. GUY ascribes to this variation solely the increased mortality which has existed at King's College Hospital of late years, as compared with its earlier time. In the five years 1840–44 the rate of mortality was 8·04; in the five years 1857–61 it was 10·85. In the latter period the hospital had been rebuilt on an improved scale, great attention being given to the questions of architectural fitness and sanitary need; and the staff was but little altered. Whence, then, the greater mortality? Dr. GUY replies that he sees in this mortality the evidence of an increasing reputation of the hospital staff, and the enlarged number of the past pupils, who are interested in the hospital, and who send from their practice the most difficult and dangerous cases for admission. Thus, says Dr. GUY, "the rate of mortality of an hospital is mainly determined by the reputation of its hospital staff amongst the public at large and amongst its own pupils."

In the same way it has been alleged that the difference of mortality in London and country hospitals which this table of Dr. FARR shows is explicable by the difference in the classes of cases admitted into these respective hospitals. The cases in provincial hospitals are, it is said, for the most part trivial; fevers (typhus and typhoid especially) are from very many of them altogether excluded, and grave accidents, compromising life, are rare. It is obvious that Miss NIGHTINGALE has no faith, at present, in these explanations. She deals with them sharply, and replies to Dr. GUY with a startling deduction:

"A high and increasing death-rate has been actually put forward, not as the result of these causes, but as the result of increasing celebrity; which can have no other practical meaning than this—that a greater number of people go there to die next year, because so many have died there this year; a principle equally applicable in private practice, and according to which the physician or surgeon who loses the largest per-centage of cases is the man most worthy of confidence."

But in such a matter as this all opinions yield to facts; and if, indeed, the facts which are known show that the class of cases is essentially different and that the varying rates of mortality may be so explained, then Dr. GUY can pass the clever antithesis by which his proposition is met.

There is only one way of settling this question—a question which is so important that, now clearly mooted, it must be decided. It is by comparing the actual records of admission of cases in London and country hospitals. Let the provincial surgeons analyze for us the registers of their admissions, showing the actual class of cases admitted into their institutions. If the surgeons and physicians of a few dozen country hospitals will do this, and forward to us the classified analysis of admissions, we will have them compared with those of the London hospitals, and thus some part of the doubt may be set at rest. Very experienced persons at present entertain the belief that the difference is so great as almost to explain the discrepancy in mortality. After this is done, however, there will still remain a comparison of another kind to be made before the comparative statistics of hospitals can give altogether satisfactory results. What we want to know, in order to form a measure of the influence of sanitary condition, is the relative mortality after given operations, and the causes of that mortality. There are some operations which lend themselves particularly well to a comparison of this kind. Of this Miss NIGHTINGALE is obviously well aware; she says that "the most delicate test of sanitary conditions in hospitals is afforded by the progress and termination of surgical cases after operation, together with the complications which they present." But nothing like complete materials for such comparisons exist; in their absence the judgment founded upon such tables as those which we have quoted, and on which Miss NIGHTINGALE lays great stress, is liable to serious error. So far as the elements for such comparison are attainable, we believe that it has been made by Mr. HOLMES and Dr. BRISTOWE in the course of the recent extensive inquiry which they have conducted, under the instructions of Mr. SIMON, for the Privy Council Office, and we have been given to understand that their results show a great similarity in degree of mortality after operations in town and country

* Congrès International de Bienfaisance de Londres. Tome ii., Partie Anglaise, p. 124. London: Trübner.

hospitals. The operations especially fitted for making the comparison are secondary amputations, and the deductions must be drawn from a good number of cases.

The regularly-increasing rate of mortality in hospitals of successively larger populations (Table I., *supra*),—if, as would appear, the table be drawn with respect only to this circumstance, and irrespective of locality in town or country,—seems, it must be admitted, to indicate that the class of cause suggested by Dr. GUY—viz., the alleged dissimilarity of cases, is not so largely efficient as is stated, even if it be more so than Miss NIGHTINGALE'S advisers are prepared to admit. Miss NIGHTINGALE says truly that careful observers are now generally convinced that the origin and spread of fever in an hospital, or the appearance and spread of hospital gangrene, erysipelas, and pyæmia, generally are much better tests of the defective sanitary state of an hospital than its mortality returns. For confirmation Miss NIGHTINGALE refers to Mr. PAGET'S oration at the College of Surgeons in 1862. It is undoubtedly true of hospitals both in town and country, and in ascribing it to original defects in their sites and plans, to deficient ventilation and overcrowding accompanying such defects, Miss NIGHTINGALE will also command the assent of the profession. It is, for example, a curious comment upon Dr. GUY'S warm vindication of the sanitary condition of King's College Hospital, and his reference of the increased mortality *solely* to the celebrity of the institution, that operations are at this moment, we believe, practically suspended there (as far as possible) on account of a persistent series of consecutive pyæmia, erysipelas, &c., after operation.

Mr. SIMON has spoken of pyæmia as being the essential measure of what he has strikingly designated the "traumatic intensity of the hospital atmosphere"; and Miss NIGHTINGALE is especially forcible in demonstrating the evil effects of "surface overcrowding," appealing not only to the great mortality of the large Scutari hospital as compared with the well-ventilated detached huts of the Balaclava Castle Hospital, but "to the fact of 80 cases of hospital gangrene having been recorded during one month at Scutari (and many, many more passed unrecorded); to the fact that out of 44 secondary amputations of the lower extremities consecutively performed 36 have died; and to the cases of fever which broke out in the hospital, not by tens but by hundreds."

With such facts before her, and in view of the distinct evidence afforded by the Registrar-General's tables that every 100 occupied beds in 24 London hospitals yielded (excluding fractions) 90 deaths in the year, every 100 beds in 12 hospitals in large country towns 83 deaths, and in 25 country and important provincial hospitals only 39 deaths, Miss NIGHTINGALE is more than justified in laying the greatest stress on internal and external sanitary conditions, and we may well require that the character of cases shall be satisfactorily explained. We ask the country hospital surgeons to furnish us with whatever data they possess; and we can but note that Dr. FARR is evidently inclined to attach the utmost importance to his tables, since, in commenting on them, he says:—

"In the meantime, it is evident from the tables that the mortality of the sick who are treated in the large general hospitals of large towns is twice as great as the mortality of the sick who are treated in small hospitals in small towns. It remains to be seen whether the mortality in small hospitals is not twice as great as the mortality of the same diseases in patients who are treated in clean cottages. Should this turn out to be the case, the means of realising the advantages of the *hospital system*, without its disadvantages, will then be sought and probably found, as the problem is not insoluble."

In addition to surface-crowding, Miss NIGHTINGALE enumerates as causes of hospital unhealthiness deficiency of space per bed, deficiency of ventilation, and deficiency of light; and in her second chapter she points out the errors in plan from which these evils arise. They are as follows: Bad sites and bad local climates; bad external ventilation of buildings; defective ward construction, and defective means of ventilation; bad drainage; absorbent walls and floors requiring washing; defective cooking arrangements; bad laundries, subjecting the washers to infection; defective accommodation for nursing and discipline; defective ward furniture.

We once more call attention to the absolute necessity for organizing hospital statistics more generally and completely. They are at present very deficient; and Miss NIGHTINGALE devotes considerable space in the present volume to the description of forms of registration for disease and surgical operations which she has submitted to the International Congresses of London and Berlin, and which have been there approved. These forms are now in use in a number of hospitals. It is extremely desirable that all hospitals should adopt a careful registration, and indeed it is doubtful whether this should not be made compulsory on all such public institutions.

Elsewhere in her book Miss NIGHTINGALE discusses Infection and Contagion. To these subjects she devotes very few pages, although a volume would be needed to do them justice. Like a hero who has braved the dangers of fire and sword, and fearless to the degree of unconsciousness of the dangers through which he has passed, she underrates the perils which she always scorned to think upon, and from which she has emerged scathless. Her doctrines are not stated in a manner which admits easily of discussion: we cannot accept them; and no effort is made to place them in a form which can convince. The subject is one of great interest and intricacy; and the medical advisers of Miss NIGHTINGALE must express their views more at length, and in a more argumentative form, before they can expect to gain converts amongst our ranks, even though they can claim so illustrious a believer.

Miss NIGHTINGALE would distribute fever patients over well-ventilated wards. Dr. MURCHISON has shown that practically contagion is disregarded by the physicians of London, who distribute fever patients through the wards as a less evil than that resulting from their concentration. They are bolder than Miss NIGHTINGALE.

Pregnant with a great truth—that health in hospital, as out, depends upon the strictest sanitary regulations,—instinct with an earnest purpose, rich in the results of manifold experience, and warmed with the vital usefulness of incomparable practical energy, these notes by Miss NIGHTINGALE must henceforth be studied by everyone who would build, modify, or administer any hospital for the sick.

WE cannot avoid allusion to the terrible event which has inaugurated the present week. Thirty-six years have elapsed since an execution similar to that of Monday last constituted the attraction of the Old Bailey. Men have not in that time grown better, but laws have become more just. To the great and good Sir SAMUEL ROMILLY, the friend of BENTHAM and

a co-operator with BROUGHAM, it is mainly due that exhibitions of a like character are not of monthly recurrence. Before the period to which we allude, "on the cursed tree of the gallows"—we use the expression of Lord COKE—"many Christian men and women were strangled" for offences now scarce punished as felonies. Then public executions proved little attractive. Now they are regarded as the great occurrences of the vagabonds' season. It is worth while to inquire how far they accomplish the objects for which by law they are designed, and tend to the repression of similar crimes. Illustration is for this purpose better than argument. The crowds assembled to witness the dying struggles of the desperadoes who paid the penalty of their crimes have been described as "more orderly" than those usually present on such occasions. In one respect their conduct is deserving of remark. Amongst the many assembled no dissentient voice was raised in pity on behalf of the five wretches, who died amid universal execration. Would that it might be inferred from their general approval of the pirates' doom that an advance had been made in public morality, or that a permanent impression was likely to be occasioned by the terrible exhibition. It is to be feared that the influence so exercised is far from proving that preventive to crime which might be anticipated. This is due to two causes—the character of the multitude and the nature of the punishment. One seems to counteract the influence of the other. A night spent in levity, jeering, laughing, hooting, whistling, and obscenity—congenial exercises of "the lowest and most brutal classes"—unfit the ruffian mind for the appreciation of the solemn vindication of the law, which, except for the abstract consideration of death it involves, has to such minds little that is formidable. Public executions have of late years been less numerous; but grave crimes are not more rare. This we attribute to the fact that the fear of death is relieved by the uncertainty of punishment. The records of the Central Criminal Court from 1840 to 1857 show eighty-two capital convictions. For those of actual murder, amounting to forty-five, but twenty-four were executed, and nineteen transported; one was pardoned, and one imprisoned for a year, while the others had their sentences commuted to various terms. This being the case, exhibitions similar to that of Monday last are but sources of morbid excitement, which, as corrective lessons, it is to be apprehended are productive of little real good. We cannot forget the public feeling on the conviction of PALMER, executed amid the scenes of his crime, and the play-bill issued at Oldbury by an enterprising manager—

"An unequalled combination of Attraction and Novelty.
The Rugeley Tragedy;
Or the Life and Death of William Palmer.
First Scene—Rugeley. *Second Scene*—Shrewsbury.
Third Scene—London.
To conclude with Music and Dancing, and a Laughable Farce."

Cui bono a medical journal writing on this matter? Crime has, unfortunately, of late years called science to its aid. Few great trials now occur in which medical evidence does not form a feature. The psychological aspect of offences against the law, and the medical appreciation of legislative measures, may appear of little consequence to the casual observer. They are not the creations of the medical profession, but necessities of the age. All that is likely to deter from the commission of crime, all that influences the public mind in its estimate of public punishments, has important relation to the duties of those to whom, as a last resource, the justice of the country must so frequently make direct appeal. We believe that in the matter of punishment by death a material alteration in public opinion is developing itself. Recent occurrences have elicited strong expressions of feeling on the subject, and shown a desire on the part of those in authority to limit its infliction to very exceptional cases. Without discussing the arguments capable of being advanced on either side,—those who desire absolute abolition, and those who wish murderers under "extenuating circumstances" to be still pemitted to live,—we venture to transcribe the code of the State of Louisiana, as prescribed by Mr. LIVINGSTON, which has been in force for thirty-six years, and has been found quite efficient. Its adoption or modification to our system of English law may, in the opinion of some, be considered as not unadvisable.

"Murderers shall be strictly confined to their respective cells and adjoining courts, in which last they may be permitted to labour, except for two months consecutively in every year, commencing on the anniversary of their crime, during which period they shall only come into the court during the time necessary to cleanse their cell; and, on the anniversary of the commission of their crime, the convict shall have no allowance of food for twenty-four hours, during which fast he shall receive the visit of the chaplain, who shall endeavour by exhortation and prayer to bring him to repentance.

"Murderers shall receive no visits, except from the inspectors, the wardens, officers, and attendants of the prison, and from those who are constituted visitors of the prison. They shall have no books but selections from the Bible, and such other books of religion and morality as the chaplain shall deem proper to produce repentance and fix their reliance on a future state.

"The fast shall not be suffered when the physician shall certify that it will be dangerous to the health of the convict.

"The convicts who have not learned to read may be instructed by the teacher.

"No murderers shall have any communication with other persons out of the prison than the inspectors and visitors; they are considered dead to the rest of the world.

"The cells of the murderers shall be painted black within and without, and on the outside shall be inscribed, in large letters, the following sentence:—

"In this cell is confined, to pass his life in solitude and sorrow, A. B., convicted of the murder of C. D. His food is bread of the coarsest; his drink is water mingled with his tears. He is dead to the world; this cell is his grave. His existence is prolonged that he may remember his crime and repent it, and that the continuance of his punishment may deter others from the indulgence of avarice, hatred, sensuality, and the passions which lead to the crime he has committed. When the Almighty, in his due time, shall exercise towards him that dispensation which he himself arrogantly and wickedly usurped towards another, his body is to be dissected, and his soul will abide that judgment which Divine justice shall decree."

ENGLISHMEN by their nature are not discouraged by defeat; their fortitude rises *pari passu* with the difficulties which they have to encounter. We owe all our liberties to what is called our "obstinacy" and perseverance. Nothing great has been attained without courage and self-sacrifice. The cause of the Poor-law medical officers forms no exception to this rule. They might, indeed, be reasonably expected to shrink from further contest for the attainment of their just rights. It will be a lamentable mistake, however, if they adopt this course.

They are a powerful and most useful body of public officers, and they have many friends in Parliament. Why have they been hitherto so comparatively unsuccessful in urging their claims upon the Legislature? Clearly from their want of union, and, we must say with reluctance, their want of liberality in supporting those who stand foremost in the defence of their rights. We publish to-day Mr. GRIFFIN'S letter to them, and his remonstrance to the Poor-law Board. It were well if our brethren would take a lesson from those whose interests, so called, would appear to be antagonistic to their own. Boards of guardians are united in powerful array against them. Even registrars are at one with respect to their grievances. Why are the three thousand four hundred medical officers of unions to submit to injustices when they have it in their power, if united, to redress them? Really the question seems impossible to be answered. Underpaid, liable to insults to which no other body of educated gentlemen have been subjected, they seem callous to the issue. They would reverse the fable of Jupiter and the Waggoner who called upon him for assistance. If they persist in this policy the waggon must remain immovable in the ruts. How could it be otherwise? Jupiter called upon the waggoner to put his shoulder to the wheel, and then, if he found him in earnest, he promised him a helping hand. Is it not lamentable that men embarked in a common cause, a cause which involves not only the interests of the profession but those of humanity, should lack the assistance of those more immediately interested? We feel ashamed to place upon record the mild remonstrance of their indefatigable and thoroughly disinterested advocate, Mr. GRIFFIN. His labours in the cause of his brethren are beyond all praise. The manner in which he has been supported and requited is simply disgraceful. He asks from them a trifling pecuniary support; he says nothing of his services in their cause. He has placed the issue fairly before them; it remains to be seen whether they will respond to his appeal. If they remain in their present position it is manifestly their own fault. If a skilful general be left without recruits and without resources it is evident he will be defeated. We do not believe Mr. GRIFFIN will be subjected to such a humiliation. Union is strength. Now is the time for union medical officers to show that they not only feel their anomalous position, but are willing to give a helping hand to a man who, by his singleness of purpose and his honest determination to effect reform, is entitled to their fullest confidence.

Medical Annotations.

"Ne quid nimis."

ARMY MEDICAL DEPARTMENT.

IT will serve to show to what straits the medical department of the army is driven that they are compelled to relax the conditions of service which were lately considered essential to its efficiency. Instead of making the concessions which will satisfy the profession—instead of taking the steps necessary to make the service sufficiently popular to attract men something near the standard laid down by Lord Herbert, by Mr. Alexander and Miss Nightingale, as essential to the well-being of the soldiers, they are prepared to adopt everything which can enlarge the quantity, irrespective of the quality, of the candidates. The list of gentlemen which we published last week as having passed through the Netley course, is one which the Director-General must have felt deeply humiliated in presenting to the English profession. It will be remembered that there were ninety-five vacancies advertised, and that the advertisement was thoroughly circulated in all the medical journals. How many Englishmen do we see on the list? Three. What a striking commentary on the intense unpopularity of the army medical department! No doubt the Netley professors, with all the admirable organization for teaching which Lord Herbert and Mr. Alexander established, have been able to do a good deal to polish the candidates, and to render them efficient for their duties. But how shameful that the good work which they did should be so completely overturned by their successors in office as that the popularity which they had given to the service should be destroyed, and that, in place of a superabundance of first-class candidates, there is now nothing but a scanty remnant of third-class candidates. Few except students who have none of the *esprit de corps*, no self-respect or confidence in their powers, are to be tempted to present themselves. We cannot but applaud the conduct of those who abstain. The inward feeling in the ranks of the army medical officers is one of profound discontent and dissatisfaction, and the authorities have shown so much contempt for the statement of grievances emanating from their own department that it is right that the material consequences of that mal-administration should become speedily apparent. The question, in one of its aspects, was one of justice, consideration, and courtesy. To this they are blind and deaf. In another it is merely a question of demand and supply. They are now feeling this. If the inducements are not sufficiently great to make it worth the while of educated medical men to enter the army, seeing the improvement in emolument, position, and the higher and more costly educational standard now incidental to medical studies, the service must be recruited from an inferior class. It was the object of Lord Herbert to draw medical officers from the class of highly educated gentlemen; to tempt some at least of the most intelligent, gentlemanly, and well-informed students into the ranks of the army medical service. This was declared necessary by all the witnesses before his Commission. Indeed it is the very essence of those measures of reform which were instituted to ensure the efficiency of the department. His measures amply succeeded. If now they fail, it is because, in the face of the gradual elevation of the standard of education and position amongst students, in the face of the more costly education and the more stringent preliminary examinations, the authorities have not only not advanced the emoluments of medical officers and improved their social status in the army, but have withdrawn, bit by bit, some of the privileges conceded by Lord Herbert. They get now only a third-class article, and a very scanty supply of it; yet they for the moment persist in refusing to effect such improvements in the pay and position of medical officers as would be likely to bring to them once more a good class of candidates; and they meet the defect, not by removing the sources of complaint, but by relaxing still more the conditions, so as to open the door more widely, and if possible to coax in a larger proportion of this same quality. Everything to swell the medical service; nothing to benefit the medical officer. The last device for diminishing the scanty supply of men willing to undergo the penalties and humiliation incidental to army medical service is the relaxation of restrictions as to age. The reasons for limiting the age to twenty-five were obvious. It was desirable that candidates should come fresh from their studies, be able to pass a high class of examination, and in a condition to profit fully by the teaching of the Netley professors. But if third class men are equally acceptable to Dr. Gibson, and his desire to please his masters overbears his sense of duty to his profession, it is quite logical that he should resort to this last means of increasing the number of candidates. This is the only explanation which we can find of the determination which we understand has been arrived at to admit to the next examinations candidates of the age of thirty. That is the response which the Director-General makes to the

cry of reform in his department. We can only explain this, though we cannot excuse it, on the supposition that he acts under strong official influence, almost amounting to compulsion.

THE NEW PHARMACOPŒIA.

THE new preparations and forms have not yet taken very deep hold on the practitioners of the metropolis. For we learn from some of the principal chemists that the proportion of prescriptions written wholly from the British Pharmacopœia is infinitesimally small, and that it is a great rarity as yet to meet with any prescription containing even one of the new preparations: when such occurs, that particular remedy is specially marked. Most of the leading practitioners have adopted, we learn, the suggestion which we made recently, that they should distinguish the source from which their formulæ are drawn by marking their prescriptions "Ph. Lond." or "Ph. Brit." respectively. Unfortunately, however, the advice has been taken somewhat in an opposite sense to that which was intended, and is commonly applied by marking "Ph. Lond." in bold letters at the head of the prescription, so as to save all trouble, and indicate their intention to stand for the present in the beaten ways. The few who have adopted the new Pharmacopœia Britannica as a text-book show commendable care in writing out the grains and in naming accurately the preparations. Thus one physician, wishing to order the old bichloride of mercury, which is the present chloride, was careful to write at length "Hydrargyri sublimati corrosivi, vel hydrargyri chloridi, Ph. Brit.;" and in such cases it is well to be cautious, for the confusion which may otherwise occur from calling the old bichloride a chloride of mercury is unpleasant to contemplate.

The slowness which the profession show to adopt the changes of the new volume will add considerably to the difficulties of the chemists, who for a long time must keep double supplies to meet prescriptions drawn from the two sources. This will be so, indeed, for many years to come, as a large residuum of patients will long continue to hold prescriptions from the London Pharmacopœia, and they will desire that the original directions of their physician which have served them long and well should still be strictly complied with. The admonition of the Preface to the chemists, that it was their duty to destroy all existing preparations immediately on the issue of the new Pharmacopœia, and to supply henceforth only those therein described and made after the fashion therein ordered, has palpably failed; and palpable failures do not add to the usefulness of a volume which claims vast authority, and relies solely on moral power to enforce it.

The influence and utility of the Pharmacopœia depend greatly upon its perfection. It has no power except what it derives from its excellence and from the desire of the medical profession and the pharmaceutical trade to be governed by the directions of the one constituted authority. Hence we cannot but think that the Pharmacopœia Committee erred when they resolved to carry out all their operations in strict secrecy—when they attempted to lock up proof sheets, and to confine the knowledge of their doings to a charmed circle. What is the consequence? That the Pharmacopœia has been issued containing many great errors from which it might have been freed if the early copies had been circulated amongst practical men for their advice and comment before it was issued. As it is, although the Pharmacopœia bears ample evidence of the great ability, large therapeutic information, and great chemical skill which distinguish its able authors, yet it is disfigured by practical mistakes which are the more to be regretted because they lessen its influence amongst the pharmaceutical chemists. This was very perceptible on Wednesday night at the lecture delivered by Professor Redwood before the members of the Pharmaceutical Society, which we publish elsewhere, and which is full of "telling hits" against the Pharmacopœia. The defects of the Pharmacopœia have been so far carefully analyzed in the series of Commentaries which we are now publishing, but great consideration has been shown for the difficulties of the task achieved. In Professor Redwood's lecture all these *lâches* have been gathered together, and form a formidable whole. It was singular to notice with what delight each point was hailed: and as he told his auditors that French vinegar was recommended by the Pharmacopœia, but that English vinegar was both more accessible and better; that no worse punishment could be desired for the authors of the Pharmacopœia than to be shut up in a laboratory until they had made the monohydrated glacial acetic acid which they order by the process which they prescribe; that in the directions for preparing hydrochloric acid they had forgotten the application of heat; that in ordering monohydrated sulphuric acid they had ordered that which could not be well prepared by the process given, nor used in pharmacy if prepared; that the new carbonate of potash of the Pharmacopœia was as difficult to prepare by the directions given as it was difficult to keep when made; that citrate of iron could not be scaled in the way described; that the collodion was a mess; and that the spirit of nitric ether was directed to be obtained from a substance practically unattainable by the process given or by any existing process,—at each of these palpable hits the applause was loud and repeated. This is somewhat to be regretted, in one sense; as it is desirable that all persons should concur in employing what has been recognised as the best available compromise. For it must be remembered that the present Pharmacopœia is a compromise between the English, Scotch, and Irish Pharmacopœias, as well as a supposed embodiment of modern improvements. A good deal of sharp criticism might have been avoided if the Committee had been more willing to take advice from those deeply concerned, yet not consulted in the compilation of the new book. As it is, the path to perfection lies through trial, for the Pharmacopœia is little short of a failure; and a second edition must be issued, correcting the manifold blunders pointed out in our columns. Criticism from men of ability will be of the greatest service in aiding subsequent improvement; and Prof. Redwood, speaking to the Pharmaceutical Society, has special claims to our attention, although we consider that his criticisms are open to farther criticism.

THE INVASION OF DENMARK: FROM A MEDICAL POINT OF VIEW.

IN spite of the terrible ordeal of a forced march from the Dannewerk to Sonderborg, in the island of Alsen—a movement which necessitated an exposure for forty-eight hours to snow and frost and a biting wind—the Danish army is described by the latest accounts as enjoying an immunity from sickness which could hardly have been expected. A few days since 100 out of 400 beds in the hospital at Augustenburg were still unoccupied, and the whole number of sick and wounded was thought to be under 1000. The Danes are said to display more than ordinary powers of endurance; they are pictured as, for the most part, young, with white skins, ruddy cheeks, and rich flaxen hair, tall, and of excellent build and frame. To their vigorous constitutions, inured to the severities of the climate of their country, they doubtless owe a portion of the health which they have retained under the trying physical and moral circumstances of a retreat from an honoured position. But it appears also—and in this probably lies the secret of their condition—that they are well supplied with food. Even in their long and painful march they had not, as is too commonly the case in such movements, to contend with hunger. The whole management of the commissariat, ambulance, and intendance, is described as being above all praise. No eulogies, indeed, are required where the results speak so plainly in proof of the advantages of a prudent liberality in ensuring to the utmost the health of a small but determined army. Their present position, however,

is one which is fraught with peril. The island of Alsen, in which the troops—to the number of 12,000—are massed, is but eighteen miles in length, and varies from three to nine miles in width. It possesses a population of its own to the extent of some 15,000, and in the houses and huts belonging to the residents the Danish army is now huddled. In such weather as that to which they are exposed, accommodation in tents is, of course, an impossibility. The consequent crowding is terrible, and *The Times'* correspondent writes, "We are awfully packed." All experience of similar circumstances in past campaigns leads us to the conviction that even a moderate continuance of such conditions will lead to the outbreak of disease. With the men depressed by exposure to the elements; harassed, too, probably, by constant attacks of the enemy upon the outworks; deprived occasionally, by the exigencies of war, of the food which is at present abundant, typhus is but too likely, ere long, to present itself in the camp. The ravages which it would commit in such a confined space can be easily conceived. There is another danger, too, which must not be overlooked in a glance at the position of the Danes. We are not informed whether the army is supplied to any extent with fresh vegetable food. It is almost certain that this is not the case. Cut off, as they now are, from deriving any supplies from the Danish peninsula and the German continent, their commissariat is dependent upon what can be drawn from the islands near at hand, or conveyed to it by ships from other countries. Fresh vegetable food is exactly the most difficult of all to be procured at this season of the year. It is bulky, too, and liable to spoil on the transit. If the Danes are furnished with fresh meat they will be independent, *for a time*, of the vegetable element; but it is a mistake to suppose, as is too often done, that health can long be preserved without it. In the Crimean campaign, during the winter of 1854-55, the Turkish army at Eupatoria was fed on biscuit, boiled rice, fresh meat twice or three times a week, (salt meat was unknown amongst them,) and yet, in the spring, nearly three men out of four, on an average, were affected with scurvy. Cold, wet, and overwork seem to have a powerful influence in fostering this disease, and the Danes are but too likely to suffer from these conditions.

It may seem cruel to anticipate such evils as typhus and scurvy when no note of alarm at their appearance has as yet been sounded. But the mere reference to these dangers will not affect the course of events; whilst, as regards the latter of these two diseases, it may possibly be productive of some useful result. A committee is in course of formation with the object of sending assistance to the sick and wounded of the Danish army. There is little doubt that the feelings of sympathy with a patriotic and oppressed people which England experiences acutely at the present moment will find their vent, in the absence of more substantial assistance, in a liberal provision for the suffering hospital inmates. We would venture to suggest that a large supply of lemons, oranges, and preserved vegetables should form an important part of any consignment which is forwarded to Denmark, and that these should be distributed as well to the nominally healthy as to those who are sick in hospital. The outbreak of a disease which, more than any other, from its depressing influence upon the mental and physical energies, is calamitous to an army in the field, might thus be prevented. Those only who have suffered from an absence of the vegetable element of food can thoroughly appreciate how grateful and acceptable such a gift would be, and what an arm of strength would thereby be lent to a brave and enduring nation.

SITE OF ST. THOMAS'S HOSPITAL.

THE powerful intervention of the Corporation of the City of London which is being actively employed to prevent the completion of the transfer of St. Thomas's Hospital to the Stangate site has somewhat altered the aspect of affairs. Recently, the purchase-money having been agreed upon by the Governors of St. Thomas's and the Metropolitan Board of Works, and the preliminaries and terms being fully arranged, it was announced by the authorities of St. Thomas's that the erection of a new hospital on the "finest site in Europe" was to be regarded as positive; and it was only needed that the site itself should be called into being, as it at present only partially exists. The active and energetic opposition of some of the inhabitants of the Borough to this removal, together, no doubt, with the sanitary objections which have been alleged against the proposed embankment site, have induced the Corporation to interfere; and for some time past Mr. Nelson, the City Solicitor, has been earnest in getting certificates and affidavits from medical men of eminence, whose opinions may be opposed to the erection of a great hospital on the Thames embankment. He has not, we believe, in every instance been successful; but we understand that "strong" declarations in the nature of affidavits have been obtained from some members of the profession, testifying against the sanitary properties of the site. On the other hand, the staff of St. Thomas's Hospital, including the eminent authority of Mr. Simon, are unanimous in its favour, and their views find support in other quarters. The medical questions raised as to the influence of a running river upon the sanitary condition of contiguous buildings, the relative mortality of town and country hospitals, and similar matters, are of much professional interest, and will be illustrated by a considerable mass of evidence.

We observe it is announced that the question between the Corporation of London and the Governors of St. Thomas's Hospital is now directly raised by the filing, on Tuesday, of a bill in Chancery by the Governors against the Corporation of London, jointly with Mr. Scott, the Chamberlain, to restrain the Corporation from using a certain retainer to the City Solicitor, sealed by the Corporation, and from affixing the hospital seal to any instruments without the previous consent of the governors. This proceeding involves the whole question of the power of the Corporation to interfere in their corporate capacity in the matter of the future site of this invaluable charity. The sealing of the retainer without the intervention of the donation governors is said to have been done at the suggestion of the Attorney-General.

CERTIFICATES IN LUNACY.

THE Royal College of Physicians of Edinburgh has taken the initiative in a movement which we trust to see generally followed by other medical corporations. The College, recognising the difficulty in which medical men are placed when called on to sign certificates in lunacy, has passed a series of resolutions expressive of its opinion on that subject. Referring to the facility with which certificates of lunacy may be used to the injury of the medical practitioners "who honestly endeavour to discharge their duty," the College instructs the Council to spare no efforts to secure the introduction of a clause affording some protection to the members of the medical profession who sign such certificates. We have already discussed this subject, and pointed out the method which seems to promise the greatest security against speculative actions—namely, an affidavit of merits and a security for costs. Such a regulation could not prejudice the fair hearing of a case, but would prevent the repetition of those expensive suits in which pauper plaintiffs commence litigation in the desperate hope of a compromise. The course adopted by the Royal College of Physicians of Edinburgh entitles it to the confidence and thanks of the profession. We trust to hear that other Colleges will co-operate in the exertions so well commenced, and we doubt not that practical legislation on this difficult subject will be accomplished. As matters at present stand, no medical man is safe in discharging duties, the necessity and responsibility of which the general public can scarcely estimate. The Medical Council ought to take up this question as one involving the best interests of the profession.

DISEASE IN THE METROPOLITAN HOSPITALS.

As might have been expected, the hospitals in London have participated in the extraordinary amount of disease and mortality which have been prevalent in the metropolis during the past two months. In most of them typhus and acute rheumatism have been rife. The mortality from the latter has been unusually great. Bronchitis and pneumonia have carried off large numbers amongst the aged of both sexes. In addition to these fruitful causes of death, pyæmia and gangrene have been frightfully prevalent in one large hospital. They attacked indiscriminately all patients who were the subjects of operations and those suffering from wounds. The consequence has been that the use of the knife has been avoided for some weeks past in that institution. In another hospital, a mild epidemic of so-called diphtheria has prevailed: every patient and sister, as well as the resident medical officers and other officials, have been affected. As most energetic means have been taken by the authorities to alleviate these evils, there is no doubt that their efforts will be effectual.

THE GENERAL REPORT OF THE CENSUS.

No. I.

THE General Report of the Census Commissioners for England and Wales has issued from the press, and we are now in a position to estimate the results of the great decennial enumeration of 1861. These results show a rare vigour of growth in the nation, and the germs of a future more prolific development. Bilious politicians who are disposed to see in the attitude of late adopted by the nation towards foreign powers signs of timidity and decadence, would profit by a course of the Census figures. By their aid the hypochondriacal fumes which cloud their brains might, perchance, be dispelled, and where a distempered vision had previously seen the doubt and hesitation of feebleness it might now perceive the undisturbed composure and dispassionate exercise of self-reliant power. At no time has the nation been so rich in physical vigour and substantial wealth as at the present; at no time have her governors been so fully justified in resting upon the consciousness of this abounding strength and prosperity as now.

The population of the United Kingdom in 1861 numbered 29,321,288 souls. Out of *ten* parts of the population, nearly *seven* belong to England and Wales, *two* to Ireland, *one* to Scotland, and a small fraction (one-twentieth) to the Channel Islands. Notwithstanding the swarm of emigrants leaving the kingdom, and amounting in the decennial period 1851–61 to the enormous number of 2,249,355, the increase of population since 1851 amounts to 1,575,339. In England and Wales the increase was much greater, amounting to 2,174,327—the total population being 20,321,288. At the rate of augmentation which has prevailed during the last ten years, the population would double itself in sixty-one years. Since 1831 the population of England and Wales has advanced firmly at a composed rate: 1983 thousands were added to it in the ten years 1831–41; 2019 thousands in the ten years 1841–51; and 2174 thousands in the succeeding ten years.

The boys born in England are in the proportion of 104,811 to 100,000 girls; but they die faster, and emigrate in greater numbers. Consequently the number of females preponderates. At the Census, 10,289,965 females and 9,770,259 males were enumerated.

On the night of the 7th of April, 1861, 11,444 of the English population were houseless. They were discovered in the open air, or sheltered in caravans, tents, barns, and sheds. No less than 74,345 persons were housed in barges or sea-going vessels in the different ports or on canals. The prisons contained 26,096 criminals; the asylums lodged 24,345 lunatics; 10,414 patients were tended in hospitals; 125,722 poor and infirm were cared for in workhouses; 63,840 soldiers occupied barracks; and 1684 public institutions of various kinds contained, in addition to their special inmates, 37,778 officers and servants, with their families. The rest of the population—the great mass—occupied 3,739,505 houses. At the time of the Census, the houses uninhabited numbered 184,694; 27,305 were being built; and the value of all the houses standing, at fifteen years' purchase, was estimated at £870,000,000.

The population was grouped in 4,491,524 families. Of 65,031 families, the constitution of which has been analyzed, the head was absent in 3163 instances; 41,526 had the husband and wife at the head; 11,099 had a widower or widow, and 9243 a bachelor or spinster. About two-thirds of the existing families consisted of married couples; 6487 were alone; and of the rest, 31,896 had one or more children. The number of children resident with parents was 93,788. Striking off the families consisting of husband and wife sole, there remained 31,896 pairs having with them at home 93,788 children.

The bulk of the population was distributed in towns. 781 towns contained 10,960,998 inhabitants; while the villages and country parishes contained 9,105,226. "The English nation, then," says the Report, "without losing its hold on the country, and still largely diffused over thirty-seven million acres of territory, has assumed the character of a preponderating city population. It enjoys the advantages of the cities of the ancient world in the proximity of its citizens for intercourse, for defence, for counsel, for production, and for the interchange of commodities; for, rapidly as the population has increased, it has not kept pace with the progress of industry and wealth."

The area which the 781 towns covered was 22,991 square miles; while the area of the rest of the country was 55,330 square miles. The mean town density of population is expressed by 3665 persons to a square mile; the mean country density by 165 persons to a square mile. Three-fourths of the total increase of population has taken place in towns.

There were 9,135,396 persons under 20 years of age, and 6,147,201 from 20 to 40. These latter constitute the young fathers and mothers of the country. 3,506,510 persons were living between the ages of 40 and 60 years; 1,378,930 between 60 and 80; 113,349 between 80 and 100; and 201 persons were enumerated aged 100 years or more. The people of the third vicenniad were born in the years of war and the first years of peace, when trade emancipation began and the fire railway was opened, before the Corn Laws had been repealed, and the nation was tranquillized by the Reform Bill. The people of the fourth vicenniad were born at the end of the American War and in the earlier stages of the French Revolution, and when the steam-engine was still in its infancy. The people of the fifth vicenniad carry us back to 1761–81, and they formed part of a young corps of three millions, including Wellington, Chalmers, Astley Cooper, Wordsworth, Scott, Moore, Coleridge, Southey, Mill, Hallam, Brougham (still with us), and a host of other glorious names. The centenarians reach back to the time "before George III. ascended the throne; when the great Commoner was in his zenith; when Nelson and Burns were born; when Canada was conquered, and the foundations of our Indian empire were laid by Clive." Our old men link us to the middle of the past, our children to the middle of the coming century.

In 1861 the husbands in England amounted to 3,428,443; the wives to 3,488,932. About 60,509 husbands whose wives were at home were absent from the country.

"The increase in ten years," says the Report, "was 459,879 in the number of husbands, and 473,318 in the number of wives, at home. The married women of the age 15—55 increased at the rate of 16 per cent. This rapid rate of increase in the married part of the English population at home will dissipate the fears of those who entertain any apprehensions that Englishmen of the present day are less disposed to contract marriage, and to take upon themselves the duty of heads of fami-

lies, than their ancestors. The increase of families living in the healthy condition of matrimony is chiefly the cause and partly the result of the prosperity of the country. While other nations have been cutting up their small plots of land into smaller plots, living unmarried on life annuities, and reducing the number of their children in various ways, the English people have followed an entirely different policy; they have married, worked with increasing industry, skilfully struck out into new fields of employment, and peopled cities and colonies with millions of their descendants."

The proportion of bachelors and spinsters at all ages between 20 and 40 has decreased, while the number had increased; and the husbands and wives at those prolific ages have not only increased in number but in proportion. The increase of wives of the age of 20—40 since 1851 has been nearly two hundred thousand. The spinsters of the age 20—40 were 1,229,051; only 60,665 more than the numbers unmarried at the same ages ten years before. The bachelors of the age of 20—40 were 1,201,576. So rapidly do they abandon this state that the numbers are scarcely increasing. In 1851 they amounted to 1,198,050. "Those who dread the depopulation of England," says the Report, "will observe with satisfaction the resources which the country commands in reserve both of spinsters and bachelors; while the economist will see that prudence is exercised to an extent which Malthus scarcely anticipated."

The occupations of the people may be thus summed up:—The professional class comprised 481,957 persons—385,345 males, and 96,612 females. Of this class 87,350 are engaged in the general or local government of the country; 151,944, at home, effective and non-effective, belong to the army and navy; and 262,660 are attached to the learned professions, or are engaged in literature, art, or science. The medical sub-order comprises 38,441 persons, of whom 35,995 are men, and 2446 women; 14,415 physicians, surgeons, and apothecaries are at the head of the list; 5566 medical assistants and students, 1567 dentists, and 16,026 chemists and druggists, including apprentices and assistants (3388 of the age of 10—20), follow. Then there are of men—cuppers, 10; officers of medical societies and agents, 21; corn cutters, 56; professors of hydropathy and homœopathy, 27; herb doctors and patent medicine vendors, 92; 82 medical botanists, 50 galvanists, 12 mesmerists, 21 bone-setters, 22 quack-doctors (so returned), and 2 cancer doctors, besides others. The women consist chiefly of druggists (388) and midwives (1913).

The numbers of men engaged respectively in the highest and lowest departments of the three learned professions are nearly equal: 35,483 are enrolled in divinity, 34,970 in law, and 35,995 in medicine.

Domestic occupations include one-third of the male and two-thirds of the female population, and number 10,058,938 persons. The commercial class includes 623,710 persons; the agricultural, 2,010,454—the great central productive class of the country; the industrial, 4,828,399; the indefinite (labourers, mechanics, &c., imperfectly returned) and non-productive (vagrants, &c.), 544,094.

The enumeration of the blind, the deaf-mutes, and the insane demands from us a more extended examination.

POOR-LAW MEDICAL REFORM.

To the Editor of THE LANCET.

SIR,—I shall feel obliged for space for the annexed letter, which will inform the Poor law medical officers that the Select Committee on Poor Relief have been re-appointed, and now I trust we shall have such resolutions passed as will induce Parliament to amend the laws relating to the medical relief of the poor. Since last July I have only received the following subscriptions:—W. Smith, Bromsgrove, 5*s.*; C. C. Claremont, St. Pancras, 10*s.* 6*d.*; W. H. Pilkington, Blackburn, £1; Medical Officers, Rotherham, £1. I need scarcely say that having already expended over £20 more than I have received, it cannot be expected of me to take any very active measures unless the Poor-law medical officers will come forward in the same liberal manner which they did some three or four years since. The Select Committee must, I feel sure, recommend something, but a mere recommendation will do nothing, unless we place ourselves in a position to compel its being carried out. You are probably aware that a milk-and-water Superannuation Bill has been put in circulation amongst the guardians by the Poor-law Board, and although it is only a permissive, and not a compulsory measure, the guardians have in many unions objected to it, and so they will to any Bill that may be sent them. Therefore, if the Poor-law Board desire to shelve a measure, they have only to send it to the guardians for their opinion, and the affair is at once settled. The registrars throughout the kingdom have lately been in correspondence, and are endeavouring to obtain one shilling for each vaccination registration, instead of the 3*d.* now paid. I wish them success, but I think when their measure comes forward we ought to get a clause inserted that our 1*s.* 6*d.* for vaccination should be increased; but unless we have a fund in hand of at least £100 we can do nothing.

I am, Sir, your obedient servant,

12, Royal terrace, Weymouth, Feb. 23rd, 1864. RICHARD GRIFFIN.

12, Royal-terrace, Weymouth, Feb. 22nd, 1864.

SIR,—I have the honour to forward to you, by railway, evidence on the medical relief of the poor, supported by an extensive series of tables, which I respectfully beg you will lay before the Select Committee on Poor Relief, which I perceive by the newspapers has been re-appointed. The evidence which I now submit to the notice of the Committee will, I feel confident, convince them that the evidence laid by me before them in 1861 is substantially correct; and that the evidence of Mr. Cane in April, 1862, in respect thereof, is most incorrect, and tends to conclusions which, if uncontradicted, must mislead the Committee, and prevent them coming to a right decision on the question. I will give you an instance of the errors committed by Mr. Cane, who says, "In 1858 there were 3307 medical officers, and in 1861, 3479;" whereas at this moment there are not more than 3102, or thereabouts, Mr. Cane having confounded the medical districts and appointments with officers. Mr. Cane says (3887), "In 1840 the medical relief was £151,781, and in 1861 £238,222." (3839) "It has been constantly and largely increasing up to last year." But he omits to inform the Committee that since 1840 the area and population of the places brought into account have largely increased, and that in reality the main increase in the payment arises from the formation of new unions, and the addition of extra parochial places to the old unions, parishes, and incorporations. Mr. Cane has thought fit to impugn my figures, but I can assure the Committee they are in the main correct. A few places no doubt are erroneously spelt—Retford, for instance, which Mr. Cane has most unfairly commented on, although he must have known that the place referred to was Thetford; for had I meant Retford, I should have called it by its right name, East Retford, and not have dropped part of the name, as Mr. Cane has done.

These quotations will prove how little his evidence is to be relied on. I therefore respectfully trust the Select Committee will admit my evidence in refutation of that of Mr. Cane, not only in justice to myself, but to the large body of medical officers I have the honour to represent: and, I may add, in justice to the poor; for I feel confident that if the views advocated by me be fairly carried out, much good will accrue to the poor, and ultimate benefit to the ratepayers. There is one point I wish should be brought before the Committee—which is, the establishment of dispensaries in all populous places, and that the drugs should be found by the Poor law Board; and in thinly-populated places, where dispensaries could not be established, an allowance—say 2*s.* per case—should be paid to the medical officers for drugs. In payment, I would advise that the money now voted by Parliament for half the salaries should be applied to this purpose, the guardians being compelled to pay a sum of not less than 2*s.* per case in towns as salary, with mileage in addition in country places.

I have the honour to be, Sir,
Your most obedient servant,
RICHARD GRIFFIN.

The Right Hon. C. P. Villiers, M.P., Chairman Select Committee Poor Relief.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

THE subject of Medical Education, which has lately been so prominently brought before us by Professor Syme in the address he delivered before the College of Surgeons, has been much talked of since. As I mentioned in a former letter, the College of Physicians is also engaged in considering what measure of reform should be introduced. I am informed the Committee appointed by that body to report upon the matter have done so, but the subject is still under deliberation. The following are some of the heads of the report which has reference to the resolutions adopted by the General Medical Council?—The Committee is of opinion that none of the subjects of study at present required by their College can be omitted. They suggest, however, that a portion of those subjects for which attendance upon lectures is necessary might be studied privately. They are favourable to the self-instruction of students, to there being a certain amount of knowledge requisite for a pass examination, and a higher amount for an examination for honours; and that a more severe examination should be necessary for a University degree than for a College licentiate's diploma. Tutorial instruction, class examinations, and an increase of the means for the student becoming practically acquainted with the various subjects of his studies, are also favourably considered. It is further suggested that the preliminary examination should not only embrace a literary but also a scientific division. The Committee, although favourable to class examinations, consider that examinations by the public boards are still advisable.

Whilst the Colleges are deliberating, the University of Edinburgh has taken a most important step, for it affects students studying not only in Edinburgh, but also in other medical schools. Candidates for the University degree are permitted "to the extent of four of the departments of medical study required," to attend "as may be most convenient to them," the lectures of teachers of medicine in the hospital schools of London, of the school of the College of Surgeons of Dublin, or of such teachers in Edinburgh, or elsewhere, as shall be recognised by the University Court. But if the resolutions adopted by the Senatus Academicus at the meeting on January 29th become law, the extra-mural lecturers and teachers in other medical schools may be injured by having a diminution in the number of those students who intend taking the degree of M.D. &c. in this University. The Edinburgh extra-mural school is, however, most likely to be injured if the following recommendations are carried into practice; but I presume that the University Court must give assent before this can be. I give the recommendations at length.

"1. The Medical Faculty recommend that there should be from three to five class examinations each session, conducted by means of questions and written answers, without aid from books or notes.

"2. That with each medical professor who conducts written class examinations, there shall be appointed one or more assessors, to be selected by the Medical Faculty from the examiners in medicine, or from the members of the Faculty, to whom the questions to be proposed shall be submitted for approval, and who, along with the Professors, shall examine the answers and determine their value.

"3. That in the event of any student receiving 75 per cent. of the marks in any department, he shall be exempt from further examination on that subject when he appears for his degree examination.

"4. That in the event of a student gaining 50 per cent. of the marks in any department, he shall only be required to undergo an oral examination on that subject when he appears for his degree examination."

I need scarcely allude to the difficulties which would arise were these adopted. Would the class examinations of the extra-mural lecturers be received by the intra-mural professors? and if not, what becomes of the advantage previously permitted that four subjects of examination might be attended outside the University? The benefit to the University is self-evident. It cannot be supposed that the Edinburgh Colleges will permit an innovation so injurious to them to pass without remonstrance.

It is expected that in an amendment to the Scotch Lunacy Bill to be brought before Parliament by the Lord Advocate during the present session, a clause protecting medical practitioners from actions for damages being raised against them by persons for the placing of whom in asylums they had granted certificates of insanity, is to be introduced. The profession here as well as in England never feel secure, when discharging this unpleasant part of their duty, that they may not be annoyed by having an action raised against them as soon as the lunatic escapes or obtains his liberation from the asylum to which he has been committed. The benefit to the public will be great, for if the clause be passed we shall be able to place patients under control at an early period of their attack of alienation, not delaying, as is too frequently the custom at present, until the lunatic becomes dangerous, or so affected that his derangement is manifest to everyone.

As if to prove the necessity for this protective clause, a trial, most discreditable to the Legislature which permits it to be instituted, has just been concluded, after a long, wearisome hearing of seven days. The circumstances of this much-talked-of case are, that a Mr. Mackintosh, having conducted himself in a very insane-like way in London, Stirling, and Edinburgh, found his way into the police-office in this city on the 11th of June, 1852, whence he was removed on the 13th to Saughton Hall, a private asylum conducted by Drs. Smith and Lowe. Thence he succeeded in making his escape, and in 1858 brought an action against the medical gentlemen (Drs. Glover and Weir) who signed the certificates under which he was transferred to the asylum. They, of course, were put to much expense and trouble to defend themselves, but had the satisfaction of finding that the jury did not consider that they had acted improperly. Defeated in this attempt, Mackintosh now, after a second interval of six years, brings an action for £5000 damages against Drs. Smith and Lowe. The present trial was heard before Lord Kinloch and a jury. It commenced on the 5th inst., and ended on the 12th, thus occupying seven days—a period which no unprejudiced person who reads the report but must consider to be at least seven days too long. The issue submitted to the jury was—whether the defenders, or either of them, and which of them, did wrongfully and illegally detain the pursuer in the private madhouse kept by them at Saughton Hall, in the Parish of St. Cuthbert's, in the County of Edinburgh, from the 13th of June, 1852, until the 21st of July, 1852, or during any part of such period, to the loss, injury, and damage of the pursuer. The counsel for the pursuer were the Lord Advocate and Mr. Fraser; those for the defenders were the Solicitor-General and Mr. McKenzie. From the fact that this action was brought after an interval of nearly twelve years, and after losing an action against Drs. Glover and Weir, who signed the certificates under which he was placed in confinement, one certainly cannot but feel some doubts as to whether Mr. Mackintosh is at present in a sane state of mind, although his counsel indicate that he is. Surely no man in a proper mental state would bear to have his history a second time laid before the world, when that history but showed a record of immorality, disease, and dissipation. Surely no man calling himself sane could sit day after day full in the view of a crowded, excitement seeking audience, whilst he told his own story of debauchery and foolishness, and whilst other witnesses on oath swore to acts what should have called the blush of shame to the cheek had moral feeling remained, or have caused him to hide himself from public gaze had it not been that the mental state in which he was offered some palliation for the discreditable details of the story.

It is, as I have already said, disgraceful to the Legislature that after an interval of twelve years, when many witnesses are dead, the memories of some less acute from advancing age, and the recollection of most obscured by lapse of time, an action of this vexatious nature can be instituted against those who conscientiously discharged their duty. I have heard said that an earlier action would have been brought but that there was difficulty in getting an agent to take up the case.

After five days spent in examining witnesses, some of whom for the pursuer found the cross-examination by the Solicitor-General by no means a matter for joking about, the Lord Advocate commenced the proceedings on the morning of the sixth day by addressing the jury in a speech of five hours' duration. Thereafter two of the jurymen became indisposed or exhausted, and after an interval the Solicitor-General spoke for the defenders for three hours. The speeches of these two advocates presented a very marked contrast, the one by the Lord Advocate being rambling and away from the subject, from time to time adorned by perorations of eloquence of which his Lordship is so well known, but evidently showing

the weakness of his case by the explanations of the pursuer's conduct being diluted in verbiage, and the peculiarity of conduct being smoothly accounted for by the juvenility of the pursuer at the time, and his being excited with strong drink. It sounded very absurd to hear his Lordship dwell on moral beauties and on the charms of the feelings within us which cause us to rise superior to this world, and to restriction of our liberty, whilst the man whose cause he advocated had listened complacently to the testimony of the witnesses, and had himself owned to his immoral vicious life.

Far different was the able, vigorous, and effective speech for the defenders by the Solicitor-General. With eloquence of a different style, his sentences were less wordy, more pointed, and did not wander from the subject.

The Lord Advocate, if one may judge from his quotations, is a great admirer of the works of Dickens and Charles Reade, and especially does he seem to admire that *pleasantly truthful* book which rejoi.es in the metallic name of "Hard Cash."

Lord Kinloch summed up shortly on the morning of the seventh day, and, after an absence of three hours, the jury returned a verdict of nine to three for the defenders.

It is to me surprising how three men could be found to support the cause of the pursuer, for to most disinterested persons it must be evident that had the sanative influence of Saughton Hall not been extended to him at the time it was, it is exceedingly improbable that he would have continued much longer either to trouble others or himself; but the very means which stopped his destruction he, madman like, turns upon and tries to injure.

There is one good which we may expect to result from this extraordinary trial. It is that, after such a gross case as this —after twelve years have passed between his liberation and his bringing this action—the necessity for some protection to medical men in the discharge of their duty must be evident; and whilst we congratulate Drs. Smith and Lowe on the termination of this trial, we trust that out of the private vexation and annoyance they have been subjected to, a great public good will arise.

How singular is an advocate's trade! Whilst Mr. Moncrieff, as the Lord Advocate, gives medical men reason to hope that protection will be afforded them from vexatious charges, he conducts most energetically for the pursuer a case of the very nature that, in his public capacity, he sees the neces ity of preventing!

Parliamentary Intelligence.

HOUSE OF COMMONS.

FEBRUARY 18.

INSANE PRISONERS ACT AMENDMENT BILL.

The House went into Committee on this Bill.

An amendment of the second clause, proposed by Mr. G. Hardy—the effect of which was to deal with prisoners under sentence of death who should appear to be insane in a special manner, by a commission—gave rise to a long discussion, and was negatived on a division by 32 to 26.

Other clauses and certain new clauses were agreed to.

POOR LAW RELIEF.

Mr. VILLIERS moved for a Select Committee to inquire into the administration of the relief of the poor under the orders, rules, and regulations issued by the Poor Law Commissioners and the Poor Law Board, pursuant to the provisions of the Poor Law Amendment Act, and into the operation of the laws relating to the relief of the poor.

The motion was agreed to.

FEBRUARY 23.

SCIENTIFIC INSTITUTIONS (DUBLIN).

Mr. GREGORY gave notice of his intention to move after Easter for the appointment of a select committee to inquire into the condition of the subsidized public institutions of Dublin.

VACCINATION OF SHEEP.

Sir J. C. JERVOISE asked the Secretary of State for the Home Department whether the experiments in vaccinating sheep were yet concluded; and, if so, when the results would be laid before Parliament.

Mr. LOWE said,—The experiments in vaccinating sheep concluded last Michaelmas, and I am sorry to say that the result is exceedingly unsatisfactory. I am also sorry to say that the report is not yet ready to be laid before Parliament. The framing of that report is in the hands of a gentleman who is not officially connected with the Government, and who, I think, has taken a deal more time than was necessary in its preparation. I am assured, however, that it will be ready by Easter. As I am not able to produce the report, I may state its general effect. The experiments that have been made are of two kinds. One has consisted in vaccinating sheep with lymph taken from the human subject, and this has succeeded in some measure. The sheep took the disease, though in an irregular and abnormal form (laughter), but when we came to test the value of that vaccination we found that the sheep took the virus either by inoculation or in the natural manner from other sheep, so that vaccination thus accomplished appears to be futile. The next plan was to inoculate cows with matter taken from sheep, in order, if possible, to produce a vaccine disease in cows which would stand in the same relation to sheep as cow-pox does to the human subject. But we entirely failed in producing that disease (laughter), and therefore the result of the experiments was altogether unsatisfactory.

INSANE PRISONERS ACT AMENDMENT BILL.

Sir G. GREY moved that the report on this Bill be agreed to.

Mr. HUNT said that when the Bill was in Committee he had stated that "Dr. Forbes Winslow had based his opinion of Townley's insanity chiefly on his extraordinarily perverted moral sense." It had been represented to him that this was not a correct statement of Dr. F. Winslow's theory of the case, which was that there was great moral obliquity in Townley, and with this a mental aberration; and, viewing these conjoint conditions, Dr. Forbes Winslow came to the conclusion that he was not of sound intellect. He (Mr. Hunt) did not see much variance between this correction and what he had himself stated, but he was anxious not, in any degree, to misrepresent Dr. Forbes Winslow to the House. He protested against moral obliquity being taken into consideration at all in estimating the sanity or insanity of a prisoner. (Hear, hear.)

The report was then agreed to.

FEBRUARY 24.

The Insane Prisoners Act Amendment Bill was read a third time and passed.

POOR LAWS.

The following members were nominated to form the Committee on the Poor Laws:—Sir J. Acton, Mr. Bazley, Mr. Bouverie, Sir G. Bowyer, Mr. Caird, Lord R. Cecil, Lord Fermoy, Lord E. Howard, Sir W. Jolliffe, Mr. Locke, Mr. Lowe, Mr. Lyall, Mr. Kekewich, Mr. Neate, Colonel Pennant, Mr. Alderman Sidney, Mr. Tollemache, Mr. Walpole, and Mr. Villiers.

"THE LANCET" LANCASHIRE DISTRESS MEDICAL FUND.

AT a meeting of the Committee at THE LANCET Office on the 17th inst., applications and accounts were considered, and grants of £10 each made to Dr. W. P. Wood, of Rochdale, Dr. G. M. Brumwell, of Mossley, and Mr. E. Meacham, of Cheetham.

The Committee will meet again on Wednesday, March 9th, to receive applications for the disposal of the balance.

TESTIMONIAL TO A SURGEON.—Dr. R. B. Painter, of Brydges-street, Covent-garden, having, in consequence of removal to South Kensington, resigned the appointment of surgeon to the police at Bow-street, was, on the 20th inst., presented by that body with a handsome silver inkstand, bearing the following inscription:—"Presented to Richard Budd Painter, Esq., M.D., F.R.C.S., also Surgeon to the F division of the metropolitan police for several years, by the officers, sergeants, and constables of that district, in appreciation of his excellent qualities, professional and private, and as a small token of their very great esteem for him. Thomas Durkin, Superintendent, Bow-street, February, 1864." The presentation is alike honourable to both parties. Dr. Painter has been indefatigable in his duties, and during his period of office did the public good service on several important occasions in which he was required as a medical witness.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 11th inst.:—

Batcher, Henry Osborn Fawcett, Ware, Herts.
Jackson, Jabez Bunting, Leicester.
Shorto, William Burt, Charing-cross Hospital.

The following gentleman on the same day passed his first examination:—

Burge, Frederick John, King's College Hospital.

A certificate to practise was received on the 18th inst. by the gentleman whose name is subjoined:—

Carpenter, Edward, St. Thomas's Hospital.

The following gentlemen also on the same day passed their first examination:—

Bell, William, King's College.
Boult, Edmund Farrington, King's College.
Griffith, Griffith, University College.
Rayner, Alex. Clement, Charing-cross Hospital.
Rigden, George William, University College.
Taylor, Francis Henry Wickham, St. Thomas's Hospital.
Wilson, M. S. W., King's College.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their first professional examinations during the recent sittings of the Examiners:—

Eames, William Lawton, Cork.
Hoar, James, Edinburgh.
Jackson, Joseph, Cumberland.
Macdonald, Thomas, Ross-shire.
O'Keeffe, John N., Co. Kerry.
Simpson, James, Cumberland.
Simpson, Thomas, Yorkshire.

The following gentlemen passed their final examinations, and were admitted L.R.C.P. Edin. and L.R.C.S. Edin.:—

Hinds, James, Notts.
Horan, Patrick Callan, Co. Cavan.
Kingston, Joseph Lindsay, Co. Cork.
M'Culloch, Latham Blacker, Drogheda.

ROYAL COLLEGE OF SURGEONS, EDINBURGH. — The following gentlemen passed their first professional examinations during the recent sittings of the Examiners:—

Anderson, Robert, Haddingtonshire.
Ingram, James, Orkney.

The following gentlemen passed their final examinations and obtained the diploma of the College:—

Dunbar, Robert Pearson, Perthshire.
Godfrey, James, Glasgow.
Mellados, Heinrich Frederik Lawatz, London.
Middleton, John, Glasgow.
Montgambert, Frederick, Quebec.
Taggart, William John, Antrim.

UNIVERSITY COLLEGE HOSPITAL.—Charles Dickens, Esq., has consented to preside at the annual dinner in aid of the funds of this hospital on the 12th of April.

ARMY MEDICAL DEPARTMENT.—Owing to the scarcity of medical officers in the Indian army, the Army Medical Department is about to hold another competitive examination for assistant-surgeoncies in the royal army on the 21st of March. The age within which candidates may be admitted is extended to thirty years. We feel bound to add that the Indian medical department has stronger grounds of dissatisfaction than the home service; and that the want of officers is only the necessary consequence of the extreme discontent and sense of injury under which the medical officers smart. The Indian papers are full of their unredressed grievances. It will be remembered that the promised Indian Medical Warrant was at the last moment withdrawn; and that the Indian medical officers, between the long debated scheme of amalgamation and a separate Warrant, have been made the playthings of men in office.

THE ROYAL POLYTECHNIC INSTITUTION.—The report of the indefatigable manager of the Royal Polytechnic Institution, Professor Pepper, just presented to the shareholders, shows that the receipts for the past year were £13,000, against the receipts of the Exhibition year, which were only £10,000. The directors have paid the highest compliments to the Professor for his exertions on behalf of this institution, and, under the patronage of the Prince of Wales, they augur a prosperous future. We regret that the proposition of one of the shareholders to present Mr. Pepper with a gratuity of £1000 was not carried. The prosperity of the institution is so completely identified with his services, that not to acknowledge them in a handsome manner can only be regarded as a false economy.

MEDICAL APPOINTMENTS.

T. C. ALLBUTT, M.B., has been appointed Physician to the Leeds Public Dispensary, vice R. G. Hardwick, M.D., deceased.

H. G. BULL, M.D., has been appointed Physician to the Hereford General Infirmary, vice J. B. Lee, M.D., resigned, and since deceased.

R. L. CAMPBELL, M.D., has been appointed Medical Officer for the Oldswinford No. 1 District of the Stourbridge Union, Worcestershire, vice T. Banche, L.R.C.P.Ed., resigned.

J. COGAN, M.D., has been appointed Medical Officer for the Watersperry District of the Thame Union, Oxfordshire, vice T. Knight, M.R.C.S.E.

R. E. COOKE, M.R.C.S.E., has been elected Medical Officer and Public Vaccinator for the Southwell District of the Southwell Union, Nottinghamshire, vice C. Calvert, M.R.C.S.E., resigned.

A. CRISP, M.R.C.S.E., has been appointed Medical Officer for the Marthum District of the East and West Flegg Incorporation of the Poor, Norfolk.

M. DENSILOE, M.R.C.S.E., has been appointed Medical Officer for District No. 4 of the Bridport Union, Dorsetshire, vice S. S. Cory, M.R.C.S.E., deceased.

W. A. ELLISTON, M.D., has been appointed Medical Officer for the Workhouse and the new District of the Ipswich Union, vice W. Elliston, M.R.C.S.E., resigned.

D. W. EMERLEY, M.D., has been elected Medical Officer and Public Vaccinator for the Naresfield District of the Wheatenhurst Union, Gloucestershire, vice C. M. Harris, M.R.C.S.E., resigned.

C. FURNER, M.D., has been appointed Medical Officer to the South-Western Branch of the London City Mission, vice Dr. Reed, resigned.

W. F. GILES, M.R.C.S.E., has been appointed Medical Officer for the No. 3 or Fawley District of the New Forest Union, vice F. R. Smith, M.R.C.S.E., resigned.

J. P. GOLDING, M.D., Assistant-Physician to the North Infirmary, Cork, has been elected Medical Officer to the City Dispensary, Cork, vice S. H. Hobart, M.B., deceased.

A. L. GRIFFITH, M.D., has been appointed Medical Officer for District No. 4 of the Highworth and Swindon Union, Wilts, vice F. H. Morris, M.D., resigned.

C. S. HALL, M.R.C.S., has been appointed Surgeon to the Carlisle Dispensary, vice R. Brown, M.R.C.S., resigned.

G. J. HINWELL, M.R.C.S.E., has been appointed Medical Officer for District No. 6 of the Bury St. Edmunds Incorporation of the Poor, vice G. P. Hubbard, M.R.C.S.E., resigned.

E. JONES, M.R.C.S.E., has been appointed Medical Officer for the Aberdare Upper Village District, Merthyr Tydvil Union, vice J. L. Roberts, M.R.C.S. Eng., resigned.

L. A. LAWRENCE, M.R.C.S.E., has been appointed Medical Officer for District No. 3 of the Southampton Incorporation.

J. LEEPER, L.R.C.P.Ed., has been appointed to the Commission of the Peace for the Town of Keady, Co. Armagh.

W. L. LE SAGE, M.R.C.S.E., has been appointed Medical Officer for District No. 5 of the Chelmsford Union, vice A. Clarke, M.R.C.S.E.

E. S. MACHIN, M.R.C.S.E., has been appointed Medical Officer for the Workhouse and the Erdington District of the Aston Union, Warwickshire, vice J. Elkington, M.R.C.S.E., resigned.

Dr. T. J. MACLAGAN has been appointed Medical Superintendent of the Dundee Royal Infirmary.

J. OLDHAM, M.R.C.S.E., has been appointed Medical Officer for the Godmanchester District of the Huntingdon Union, vice F. H. Woods, L.R.C.P. Edin., resigned.

W. PAYNE, M.R.C.S.E., has been appointed Medical Officer for the Nettlebed District of the Henley Union, Oxfordshire, vice J. Knill, L.R.C.P.Ed., resigned.

R. PURNELL, M.D., has been appointed Medical Officer for District No. 1 of the Wells Union, Somersetshire, vice H. W. Livett, M.D., resigned.

W. H. F. RAMSDEN, L.R.C.P.Ed., has been appointed a District Medical Officer for the Saddleworth Township, Yorkshire, vice Beckett Bradbury, M.D., resigned.

S. C. REED, M.D., has been elected Medical Officer to the South District of the West London Union, vice F. Kelleif, L.R.C.P.Ed., resigned.

F. V. SANDFORD, L.R.C.S.Ed., has been appointed Medical Officer for the Sarratt District of the Watford Union, Herts, vice R. Wood, M.R.C.S.E., resigned.

C. J. SMITH, M.R.C.S.E., has been appointed Medical Officer for the Mickleton District of the Shipston-on-Stour Union, vice J. A. Cookey, L.R.C.P.Ed., resigned.

S. J. F. STAFFORD, M.R.C.S.E., has been appointed Medical Officer for the West-side of Pure, in the East and West Flegg Incorporation of the Poor.

J. T. WALLIS, M.R.C.S.E., has been appointed Medical Officer for the Flegg Burgh District of the East and West Flegg Incorporation of the Poor.

W. WILLIAMS, F.R.C.S.E., has been elected Medical Officer for the Workhouse of the Dolgelly Union, Merionethshire, vice S. J. Morris, M.R.C.S.E., deceased.

G. WOOD, M.D., has been appointed Medical Officer for District No. 2 of the Hemsworth Union, Yorkshire, vice W. Birtwhistle, M.R.C.S.E., resigned.

R. WOODMAN, M.D., has been appointed Medical Officer for the Workhouse of the East and West Flegg Incorporation of the Poor.

MILITARY AND NAVAL MEDICAL APPOINTMENTS.

W. H. ADLEY, M.R.C.S.E., Assist.-Surg. Bengal Service, has been promoted to Surgeon, vice Deputy Inspector-General of Hospitals R. W. Faithfull, deceased.

J. BISHOP, L.R.C.S.Ed., Assist.-Surg. R.N. July 14th, 1859, has been appointed to the "Victory" (additional) for the Royal Marines at Fort Elson.

S. CAMPBELL, M.D., Assist.-Surg. R.N. Nov. 6th, 1856, has been appointed to the Woolwich Division of the Royal Marines.

W. F. CHARR has been appointed to officiate as Civil Assist.-Surgeon of Tirhoot, Bengal.

H. T. DANE, M.R.C.S.E., Assist.-Surg., has been transferred from general duty Poona Division, to general duty Bombay Garrison.

R. H. DAVIDSON, M.D., Surg.-Major Bombay Service, has been appointed to officiate as Deputy Inspector-General of Hospitals during the employment of Deputy Inspector-General Leith on special duty.

J. DONALDSON, M.D., Assist.-Surg., has been appointed to do duty with the 17th Brigade Royal Artillery, Madras, during the employment of Dr. Mackay on other duty, or until further orders.

T. FARQUHAR, M.D., Surg. Bengal Establishment, has been appointed Surgeon to his Excellency the Governor-General.
T. G. HEWLETT, M.R.C.S.E., Assist.-Surgeon, Acting Deputy Assay Master, Bombay, has passed the required examination in Hindoostance, Staff test.
G. Y. HUNTER, Assist.-Surg. Bengal Service, in medical charge of the Nimar Agency, has been confirmed in that appointment.
J. A. C. HUTCHINSON, Assist.-Surgeon Bengal Service, has been promoted to Surgeon, vice Surg. P. G. Lay, retired.
W. A. LESLIE, M.R.C.S.E., Surg., has been removed from doing duty with the 17th Brigade Royal Artillery to the 2nd Madras Native Infantry.
G. MACKAY, M.D., Surg. Madras Service, having been relieved of the medical charge of the 4th District, has been directed to assume medical charge of, and do duty with, the 17th Brigade and Details Royal Artillery.
J. M'SWINEY, Surg. R.N. Jan. 1st, 1853, has been appointed to the "Duncan" (additional) for Bermuda Hospital.
J. G. S. MATHESON, Staff Assist.-Surg. Bombay Service, has been ordered to do duty with the General Depôt, Khandalla, until further orders.
T. MATHEW, M.B., has been appointed to officiate as Civil Assist.-Surgeon of Nuddea, Bengal.
F. H. MOORE, Assist.-Surg. R.N. Aug. 28th, 1856, has been appointed to the Plymouth Division of the Royal Marines.
W. MUDGE, Surg.-Major Bengal Service, has been appointed Examiner of Accounts, Medical Department, from the date of Surg.-Major Balfour's promotion to the office of Deputy Inspector-General of Hospitals, Madras.
F. O'DELL, L.R.C.S.I., Staff Assist.-Surg. Bombay Service, has been appointed to the medical charge of Colaba Sanitarium, vice Dolan, about to appear before a Medical Board.
C. PALMER, M.D., Surgeon Bengal Service, has been appointed to officiate as Presidency Surgeon during the absence on sick leave to Europe of Surg.-Major T. W. Wilson, M.D.
J. B. SCRIVEN, Assist.-Surg. Bengal Service, has been promoted to Surgeon, vice Deputy Inspector-General of Hospitals M. M'N. Rind, deceased.

Births, Marriages, and Deaths.

BIRTHS.

On the 24th of Dec., at Ahmedabad, the wife of Dr. Thorp, of a son.
On the 10th inst., at Market-Harborough, Leicestershire, the wife of George Pearce, M.D., of a son.
On the 13th inst., at Hoe-street, Walthamstow, Essex, the wife of J. G. Braden, M.R.C.S.E., of a son.
On the 13th inst., at Wellingborough, the wife of G. C. Sharman, M.R.C.S.E., of a son.
On the 13th inst., at Northgate House, Darlington, the wife of Dr. Howlson, of a daughter.
On the 13th inst., at Swineshead, Spalding, Lincolnshire, the wife of S. B. Roberts, M.D., of a son.
On the 14th inst., at Callander, the wife of Dr. M'Laren, of a son.
On the 15th inst., at Bralecknan, the wife of Dr. Campbell, of Inverary, Argyleshire, of a son.
On the 16th inst., at Thorverton, Devonshire, the wife of J. H. Tuke, M.R.C.S. Eng., of a son.
On the 19th inst., at Kirkcaldy, the wife of J. Young, M.D., of a daughter.
On the 19th inst., at Park-place, Blackheath, the wife of R. M. Theobald, M.R.C.S.E., of a son.
On the 20th inst., at Govan, Glasgow, the wife of Dr. J. Aitken, of a son.
On the 20th inst., at Grosvenor-street West, Eaton-square, the wife of J. C. Webb, M.D., of a son.
On the 22nd inst., at Maryhill, the wife of W. James, M.D., of a daughter.
On the 22nd inst., at Manchester-square, the wife of Dr. Sieveking, of a son.

MARRIAGES.

On the 4th inst., at St. Thomas's, Southwark, Edward Reynolds, Esq., Barrister-at-Law, second son of George W. M. Reynolds, Esq., of Woburn-square, to Ada Mary, third daughter of Samuel J. Bayfield, Esq., of St. Thomas's-street, Southwark.
On the 4th inst., at Eskside, Musselburgh, James Jeffrey Hardesty, L.R.C.P.E., of Gifford, Haddingtonshire, to Maggie, youngest daughter of the late James Roughead, Esq., of the "Courant" Office, Edinburgh.

DEATHS.

On the 12th of Nov., at Calcutta, J. Brown, M.D., Bengal Medical Service, 1st Assist.-Surg. Presidency General Hospital.
On the 27th of Dec., at Callan, Co. Kilkenny, G. Cronyn, M.D.
On the 30th of Dec., W. Evans, F.R.C.S.E., of Herne Bay.
On the 31st of Dec., at New Shildon, Durham, H. W. F. M. Lomas, M.R.C.S. Eng., aged 34.
On the 5th ult., at Grafton-road, Holloway, W. Dewey, Surgeon, late of Taunton, and formerly of Portsmouth, aged 64.
On the 6th ult., at Westing Rectory, E. B. Harman, M.D., late of Pembridge-place, Bayswater, aged 61.
On the 8th ult., at Clifton-terrace, Maida-hill, J. A. Staig, late Surgeon Bengal Medical Establishment, aged 51.
On the 3rd inst., at Wymondham, S. Day, M.D., aged 49.
On the 12th inst., Charles Cheseldon Higgins, Surgeon, of Abbots-Bromley, aged 80.
On the 12th inst., J. Dawson, of Bandon, Student of Medicine at Queen's College, Belfast.
On the 16th inst., at Addison-road North, Notting-hill, Henry Robert Davis, M.D., son of Robert Davis, M.R.C.S., and son-in-law of George Phillips, Esq., of the Inland Revenue.
On the 16th inst., at Glasgow, J. Macfarlane, Surgeon, of Arrochar.
On the 16th inst., at Whiteness, Shetland, G. W. Spence, M.D., formerly of the Royal Newfoundland Companies.
On the 19th inst., at the Dundee Royal Infirmary, of typhus fever, Jas. Grant, M.D., Medical Superintendent, aged 28.

Medical Diary of the Week.

MONDAY, FEB. 29
- ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM.—Operations, 1½ P.M.
- METROPOLITAN FREE HOSPITAL. — Operations, 2 P.M.
- PATHOLOGICAL SOCIETY OF LONDON.—8 P.M.
- MEDICAL SOCIETY OF LONDON.—8½ P.M. Lettsomian Lectures on Physiology, by Dr. Edward Smith. Lecture III.: "The Emission of Urea and other Excretory Products, under the influence of numerous agencies."

TUESDAY, MARCH 1
- GUY'S HOSPITAL.—Operations, 1½ P.M.
- WESTMINSTER HOSPITAL.—Operations, 2 P.M.
- ROYAL INSTITUTION.—3 P.M. Prof. Marshall, "On Animal Life."
- ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Huxley, "On the Structure and Classification of the Mammalia."
- ANTHROPOLOGICAL SOCIETY OF LONDON.—8 P.M. Mr. A. R. Wallace, "On the Origin of the Races of Men, with reference to the Theory of Natural Selection."
- ROYAL MEDICAL AND CHIRURGICAL SOCIETY OF LONDON.—8 P.M. Anniversary Meeting.
- ST. MARY'S HOSPITAL MEDICAL SCHOOL.—8 P.M. Dr. Grailly Hewitt's Clinical Conferences in Midwifery.

WEDNESDAY, MAR. 2
- MIDDLESEX HOSPITAL.—Operations, 1 P.M.
- ST. MARY'S HOSPITAL.—Operations, 1 P.M.
- UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M.
- ROYAL COLLEGE OF PHYSICIANS.—5 P.M. Croonian Lectures: Dr. Basham, "On Dropsy: its Significance as a Symptom in Renal, Cardiac, and Hepatic Diseases."
- OBSTETRICAL SOCIETY OF LONDON. — 8 P.M. "Cases of Ovariotomy," by Dr. Tyler Smith; and Papers by Mr. Squire and others.

THURSDAY, MARCH 3
- ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
- CENTRAL LONDON OPHTHALMIC HOSPITAL — Operations, 1 P.M.
- LONDON HOSPITAL.—Operations, 1½ P.M.
- GREAT NORTHERN HOSPITAL, KING'S CROSS.—Operations, 2 P.M.
- LONDON SURGICAL HOME.—Operations, 2 P.M.
- WEST LONDON HOSPITAL.—Operations, 2 P.M.
- ROYAL ORTHOPÆDIC HOSPITAL. — Operations, 3 P.M.
- ROYAL INSTITUTION.—3 P.M. Prof. Marshall, "On Animal Life."
- ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Huxley, "On the Structure and Classification of the Mammalia."
- CHEMICAL SOCIETY.—8 P.M. Prof. Abel, "On the Non-Metallic Impurities of Refined Copper."
- HARVEIAN SOCIETY.—8 P.M. Mr. Weeden Cooke, "On the Tumours affecting the Female Breast."

FRIDAY, MARCH 4
- WESTMINSTER OPHTHALMIC HOSPITAL. — Operations, 1½ P.M.
- ROYAL COLLEGE OF PHYSICIANS.—5 P.M. Lumleian Lectures: Dr. Barclay, "Fallacies in the Application of the Inductive Method of Reasoning to the Science of Medicine."
- ROYAL INSTITUTION.—8 P.M. Prof. Stokes, "On the Discrimination of Organic Bodies."

SATURDAY, MARCH 5
- ST. THOMAS'S HOSPITAL.—Operations, 1 P.M.
- LOCK HOSPITAL, Dean-street, Soho.—Clinical Demonstrations and Operations, 1 P.M.
- ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
- KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
- ROYAL FREE HOSPITAL.—Operations, 1½ P.M.
- CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
- ROYAL INSTITUTION. — 3 P.M. Prof. Frankland, "On the Metallic Elements."
- ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Huxley, "On the Structure and Classification of the Mammalia."

To Correspondents.

MEDICAL EDUCATION.

WE have received some communications from correspondents whose authority as teachers in the metropolis is deservedly great. In order to give due prominence to this important subject, we are compelled, owing to the crowded state of our columns, to postpone it until next week.

Enquirer.—1. Chloroform, coffee, and the syrup of ginger cover pretty effectually the bitterness of quinine.—2. The bitterness of strychnia very far exceeds it.

Mr. Redfern Davies (Birmingham) shall receive a private note.

Partrigs Fund.—We have received the following sums towards this fund:—Dr. B. Gill, £2 2s.; G. Y. Hunter, Esq., Margate, £1 1s.

A Reader.—Apply to our Publisher.

Mr. Lakeland's handbill is neither creditable to his taste, nor calculated to uphold the honour of the profession.

Inquirer, (Ludlow.)—Several such works are in course of preparation.

THE CASE OF DR. RICHARD MILLETT, OF HAYLE.

COMMUNICATIONS have reached us from correspondents in reference to the conduct of the case, both for the prosecution and the defence, in the recent painful charge against Dr. Millett in connexion with the death of his brother. We have carefully considered the statements of "Enquirer" (Croydon) on the one hand, and those which have been transmitted to us from persons residing in the locality, on the other, as well as the depositions before the magistrates. We would point out to "Enquirer" that he will have another opportunity to put forward any facts which he believes to have been insufficiently considered, inasmuch as we understand that Dr. Millett intends to prosecute at the ensuing sessions, and will lay very heavy damages. As our opinion has been invoked by both parties, and we have had the trouble of going through the voluminous documents transmitted, we may say that, in addition to fully concurring in the verdict which cleared the character of Dr. Millett, we are of opinion that there never was any rational ground for the charge, and that a grievous wrong was done to Dr. Millett in calling for a second inquiry. The Coroner's verdict was perfectly satisfactory: the cause of death was unequivocally serous effusion in the brain. Dr. Taylor's report was very properly most decided on this point, and we regret to find there exists even one person who is disposed still to raise doubts. We fully sympathize with Dr. Millett in the matter.

THE communications of *Dr. Carson* and *Dr. Morton* shall be published in the next LANCET.

MEDICAL EDUCATION.

To the Editor of THE LANCET.

SIR,—Permit me to call your attention to certain evils resulting from the present system of medical education. By the new Medical Act, a student is obliged to go through an educational course of four years at a London hospital; I say a "London hospital," because although certain provincial medical schools do exist, yet the bulk of our surgeons have learned their profession in London. At the expiration of that time he passes the College of Surgeons and the Apothecaries' Hall, and is qualified to practise. At first sight this plan seems very proper and plausible; but in my mind there is a grave objection open to it. There is no teaching preliminary to an hospital course. A raw country lad leaves his home, and rushes at once into all the temptations of a London life; he takes lodgings, keeps house for himself, has a latch-key, and consults his own discretion as to hours. In the first delight of freedom from all restraint, and in the pleasing consciousness that he may do as he likes, this boy commences his hospital studies—i. e., he attends lectures, he goes round the wards. The first, in all probability, simply bores him, because, having had no previous instruction in the subjects, his mind cannot take in a mere reading, but requires constant repetition and explanation. He listens to his first lecture ardently, his second despairingly, and his third sleepily, and ends by absenting himself as often as he dares. "He goes round the wards." Any medical man, recalling his hospital life, will remember how closely and eagerly surgeons are followed by new men, and after the first week how they drop off one by one, and are seen no more. The reason of this is obvious: they find that they learn little or nothing. How can a man be taught a fracture when he has not learned a bone? How understand a prescription when he does not know a drug? The result is what might be expected: the young student becomes disheartened, loses all ambition, and the hope of success; no longer acting as a charm against dissipation, he falls into bad habits. The yielding to temptation is, of course, not a necessary consequence of disappointment in study; many will persevere through every discouragement. But, Sir, picture to yourself a boy of seventeen attending lectures that he cannot comprehend; listening to bedside explanations, which to him are bedside enigmas. At the same time see vice, in all the seductive brilliancy of first acquaintance, ready to shake hands, and then tell me is he likely to put his shoulder to the wheel, and overcome his difficulties, or will he lose interest in his work, and yield to his inclinations?

Having shown the evils, allow me to suggest a remedy. Let students have preliminary instruction at a country hospital, and let two years at these institutions be equivalent to one year of the London course. Give parents the choice between sending their sons direct to a London hospital, where they would have no private teaching and no control, and sending them to the surgeons and house-surgeons of country hospitals, where they would have all the little difficulties explained which arise at the first outset of studies (a thing impossible by lectures), and at the same time they would be morally under the restraint of their teachers. At the end of the two years' country teaching, look at the student entering London. He has laid in his mind a good foundation upon which to build his future knowledge. His lectures now interest him, and he understands and profits by clinical instruction. When he gains a dressership, his blunders do not hurt the patient nor annoy the surgeon. All the minor details of dressing he is already acquainted with, and after his London experience he enters practice as a really efficient surgeon.

I am, Sir, yours, &c.,

February, 1864. A WELL-WISHER.

D. G. H.—Our respected correspondent enunciates in his communication the opinions of the mass of his professional brethren. The British Pharmacopœia is undoubtedly a deficient publication. A second edition is required to correct the mistakes and shortcomings of the first. Why should "D. G. H." publish anonymously a communication which, if his name were appended to it, would not fail to attract general attention?

THE NUISANCE IN GEORGE-STREET, HANOVER-SQUARE.

To the Editor of THE LANCET.

SIR,—Will you allow me to call your attention to the enclosed nauseous bill which was sent to a friend of mine a few days ago? That such an institution should be permitted to continue to distribute its filthy handbills is bad enough for us who practise in the same street; but when domestic privacy is invaded, I think it is high time to see if the evil cannot be put down.

The person to whom the document was sent was greatly annoyed that, whilst opening other letters at the breakfast-table, this disgusting advertisement, intended "for gentlemen only," (!) should fall out of the envelope under the eyes of his wife.

I think the magnitude and wide-spread increase of the mischief is sufficient excuse for my troubling you with this letter.

Your obedient servant,

George-street, Hanover-square, Feb. 1864. M.D.

A Leeds Surgeon.—Some rumours have already reached us respecting the alleged compact entered into by some of the surgeons of the Leeds Infirmary to create an *imperium in imperio* to carry the election of certain gentlemen in opposition to the rules of the institution. The letter of our correspondent, who has written with great ability, treads too nearly on libellous ground to entitle it to insertion in our columns. There are many men of eminence in Leeds, unconnected with the School of Medicine, whose claims to be elected as surgeons to the infirmary it would be a scandal to ignore. They are men of influence and position in the town, and if they are able to substantiate even a small portion of the charges which our correspondent makes against the "cliqua," it is their bounden duty, in the interests both of the profession and the public, to hold a meeting, and pass such resolutions as shall enlighten the governors of the infirmary upon the subject. Resolutions framed in temperate but firm language will not fail to command attention. In questions involving great public interests, a bold and straightforward course is the safest and the most effectual. There is more than one surgeon in Leeds, totally unconnected with the school, who might properly take the lead on such an occasion. Why should not our correspondent inaugurate the movement? He is a gentleman whose name would add weight and importance to the proceedings.

THE NEW PHARMACOPŒIA.

To the Editor of THE LANCET.

SIR,—The remarks you made on the new directions of the Pharmacopœia on the subject of weights encourages me to address you on the present occasion. Certainly much trouble and some difficulty will ensue from the use of the high numbers which will often be requisite; but a still more serious effect is the danger which will arise of mistakes being made when the dispenser has to multiply the terms of a prescription, which very frequently occurs in the making up of pills and powders. There seems to be a general, almost universal, feeling that some modification or alteration will, indeed must, be made in the practical working of the directions of the Pharmacopœia. Whether this be effected by authority or by conventional use, it is important that the system adopted should be the result of careful consideration. By you the most important assistance can be rendered, both by your direct advice and by affording the means of discussion to those who are specially interested in it. In furtherance of the object I venture to offer a suggestion till a more advisable plan be proposed. All that I consider necessary is a change in the name, the *audible name*, of what has been called the ounce. For explanation's sake I will call it the octa. All the symbols then remain unaltered; former prescriptions require no change; the scruple, the drachm, and the octa continue as heretofore, because the grain remains the same. For *reading* a prescription all is as it was; for the octa contains 480 grains, the ounce being 437; but as the *symbol* for the ounce was never applied to the imperial ounce, to the eye no change is made. And this, in fact, does not interfere with the new Pharmacopœia, and scarcely at all with usual practice; for all the symbols remain of the same value, and the mere *name* of the 480 grains is in practice never used by the prescriber, and scarcely ever by the dispenser. Prescriptions will be *written* and *read* just as before, and practically no change will be made from the new Pharmacopœia beyond an abbreviated and accustomed mode of writing.

Yours, &c.,

February, 1864. T. B. N.

Yorkshire.—The first stone of the new infirmary at Leeds will be laid in March next. The hospital will be planned on the pavilion system, and in arrangement the pavilions will be nearly like those at the Lariboisière, except that there will be projections in a diagonal position from the angles of the ends of the wards, canted so as to approach in outline to a portion of an octagon. The wards are to have double open stoves in the centre; the smoke to be carried off by descending flues. The walls and ceilings will be finished either in Keene's or Parian cement; the floors are to be of oak, and the staircases of stone. Report says that when it was determined to erect a new infirmary at Leeds, the Committee resolved that it should, as far as possible, embody all the more recent improvements, and began by requesting their architect, in company with Dr. Chadwick (their senior physician), to make a careful inspection of the hospitals of Paris, Brussels, Bruges, &c.

THE WAR IN SCHLESWIG-HOLSTEIN.

To the Editor of THE LANCET.

SIR,—As I feel deeply interested in the heroic struggle the brave Danes are now carrying on, I shall feel much obliged if you or any of your correspondents will inform me whether the services of experienced surgeons are likely to be required. If such a contingency should arise, I shall be happy to render them my aid as a surgeon.

I am, Sir, your obedient servant,

A SUBSCRIBER OF TWELVE YEARS TO

Westmoreland, February, 1864. THE LANCET.

M.R.C.S. Eng., and a Well-wisher to the Profession.—The suggestion has been frequently made in this journal. There is some difficulty in determining in what manner such an arrangement could be carried out; but eventually it will no doubt be adopted.

Dr. W. Macdonald (St. Andrews) shall receive a private note.

CANCER OF THE OVARY IN A CHILD.

To the Editor of THE LANCET.

SIR,—In your review of Dr. Tanner's "Clinical Report on Cancer of the Female Sexual Organs," (Feb. 6th,) you say "that you believe a case which he gives of cancer of the ovary in a girl under ten years of age to be the youngest on record."

Let me recall to your recollection a case in your Journal of 1852, (vol. i., p. 456,) reported by Dr. Brown, of Cliftonville. It occurred in an infant only nine months old, suggesting the question of its having commenced as a disease of the fœtus in utero. The preparation is in the museum of the Brighton Hospital.

I am, Sir, your obedient servant,

Brighton, February, 1864. E. P. PUSSELL, M.B., M.R.C.P.

Medical Student, (Edinburgh.)—Our correspondent will find some information in a little book (to be ordered of Baillière, Regent-street) called "Guide de l'Étudiant en Médecine." This is written, however, principally for French students. We are not aware of any English work having been published on the subject. "Medical Student" should decide, before starting, which branch of medical knowledge he wishes especially to study in Paris. If surgery, frequent the Hôtel Dieu, the Charité, and Hôpital des Cliniques, where Jobert, Velpeau, Malgaigne, Nélaton, and Maisonneuve are to be found; if medicine, look for Trousseau at the Hôtel Dieu. Skin diseases at St. Louis, and venereal diseases at the Hôpital du Midi, where Ricord used to teach, but has now retired. Attend a few lectures at the Faculty, and for operations on the dead body apply at the Ecole Pratique. All the places are free to foreign students; but a little knowledge of French is desirable. Put up at one of the "hotels garnis" in the neighbourhood of the school. A good room will cost from 6s. to 10s. a week, and board may be taken, out of the house, in one of the numerous places in the vicinity of the Faculty building. In any emergency apply to the Secretary of the English Medical Society of Paris, whose address may be had from any medical bookseller.

INFANTS AT SEA.

To the Editor of THE LANCET.

SIR,—Your correspondent, "An Inland L.R.C.P.," is informed that the best substitute which he can employ for the milk of a cow, when that of a goat cannot be procured, is "Borden's Condensed Milk," an American preparation, which is in the form of a paste. It merely requires the addition of hot or cold water to form a fluid, which so closely resembles, both in appearance and properties, the natural milk of the cow, that were it not for the sugar which it contains there would be a difficulty in distinguishing the two. Moreover, after a tin has been opened, the paste will remain perfectly sweet and good for at least ten days, even in the very hottest weather. The European inhabitants of India and China use it in preference to the milk they can there obtain; and in the French mail steamships on these coasts it is universally employed, no cows being carried. After an experience of some years, I can safely assert that this preparation is far superior to any other. I have lived almost entirely upon it for upwards of three months whilst suffering from dysentery.

If "L.R.C.P." will communicate with me, I shall be happy to give him any further information that he may require.

I am, Sir, yours obediently,
Belper, February, 1864. H. WRIGHT LOMAS, M.R.C.S.

To the Editor of THE LANCET.

SIR,—In reply to "An Inland L.R.C.P.," who asks for the result of experience in the feeding of infants at sea, I beg to inform him that of the three kinds of preserved milk which I have seen, the fluid is the best; but for the use of infants the greasy substance seen on the surface should be removed. This milk, used even in a small quantity, with Robinson's patent groats, I have found to form a very good and nutritious diet, and will, when aided by a little soup or mutton-broth, be quite sufficient to keep small children in health. The general healthy climates encountered in long voyages—I presume your correspondent means to the antipodes—are very favourable to the little passengers, who thrive in most cases wonderfully well. On rounding the Cape, however, a little port wine daily is beneficial, as this is the coldest part of the voyage. I would advise "L.R.C.P." to put no faith whatever in the statement of the ship carrying a cow; for the unfortunate animal leaves off giving milk generally in a fortnight or three weeks, and is then killed for the consumption of those on board.

I remain, Sir, yours truly,
February, 1863. SURGEON SUPERINTENDENT.

Northamptonshire.—The following extract from the *Northampton Herald* offers a curious illustration of the manner in which union medical officers are occasionally treated by boards of guardians. Mr. Litchfield should put the "saddle on the right horse" when he speaks of extravagance in the union. If he does not charge the medical officers with recommending wine improperly, he certainly insinuates something amounting very closely to dishonesty on their part. We think he might well have refrained from such an attack upon the members of an honourable and liberal profession:—

"The Rev. F. Litchfield called attention to the orders for wine made, and in such different frequency and degree, by the medical men of the district. The increase had been going on he (Mr. Litchfield) believed for years, till at length it threatened to become a serious evil, not simply to the ratepayers as a question of great though questionable cost, but to the labouring classes, thus tempted into becoming and continuing claimants for parochial relief. He did not mean to charge medical officers with recommending wine improperly; but no doubt nothing could so promote their personal popularity, not to speak of the pecuniary advantage clearly accruing from their being able to substitute wine for bark, quinine or steel, and other medicines, which they, he believed, were bound by their contract with the board to supply.

"The Guardian of Croughton (Mr. Berridge) said he quite agreed with what had been said about the wine orders, and considered them calculated more than anything else to pauperize the labouring classes in every parish.

"Another Guardian stated a case within his knowledge, where a pauper had been prevented by his family from ceasing to be so, lest the gift of the wine should cease.

"Mr. Litchfield next commented upon the enormous cost of the wine supplied by the guardians—namely, 60s. per dozen, for the same wine that any of the guardians could obtain for themselves at 22s. He then moved the appointment of a committee to inquire into the whole wine question.

"The motion having been seconded by the Chairman, who noticed the difficulty of having depôts in different parishes, and of supplying them from head quarters, was carried unanimously, and a committee appointed."

A Friend.—The chemist had no right to treat the case at all. Diphtheria often proves fatal in a few hours, and requires most active measures to arrest its progress.

Enquirer.—A verbal contract would not be binding.

Dr. Gill is thanked for the compliment.

Dr. Musgrait.—The paragraph is not suited for THE LANCET.

T. G. R.—Unless a distinct contract can be proved, the claim, which is a most just and reasonable one, cannot be recovered by legal means. In such a case, under the statute of frauds, the plaintiff would probably be nonsuited, as no written promise to pay is in existence. It may be a question, however, how far the landlady might be regarded as the agent of the defendant. If the judge of the County Court should so regard her, the plaintiff might possibly recover.

Mr. S. Nicholson, (Liverpool.)—No such case is on record.

A Constant Reader.—The suggestions are worthy of consideration, and shall not escape our notice.

Physiologist.—Attention shall be paid to the subject in an early number.

ARMY MEDICAL OFFICERS—THE APOTHECARIES' LICENCE.

To the Editor of THE LANCET.

SIR,—It is to be regretted that the War Office authorities have placed the appointment of assistant-surgeon within the reach of apothecaries, as it is a step in the wrong direction, and calculated not only to disgust medical officers already in the service, and lead to their resignation, but also to prevent properly qualified men from seeking commissions.

There will be no difficulty in procuring candidates if a sufficient inducement be offered. More pay is required, and without this being considerably increased, well educated young men of any ability would be very unwise to enter the service, as they can do much better as civilians; and, should they marry, will have much greater facilities of supporting and educating their families, to say nothing of their escaping the deadly influence of unhealthy climates.

With regard to military rank, we have quite enough of it; for call us what you will, we are doctors, and but few of the best of us care for the personal adornments of spurs and scabbards, which not only have the disadvantage of endangering the neck of the wearer, but are also a source of irritation to combatant officers.

Your obedient servant,
February, 1864. REGIMENTAL SURGEON.

Mr. W. T. Johnstone.—A person so qualified can practise generally. It is questionable, however, whether he can charge for medicines in a medical case without a licence from the Apothecaries' Company.

Dr. B. is thanked. The article contains many points of great interest.

Lex.—The purchase should have been made of the trustees, they being the only parties under the deed who were entitled to dispose of it.

A. B.—Yes, in a future number.

Medicus.—Residence is not required at Aberdeen. Write to the Secretary.

MILITIA SURGEONS.

To the Editor of THE LANCET.

SIR,—In reply to a query in your last impression from "A Militia Surgeon," asking what has become of the Society and the funds, I shall have much pleasure, if the gentleman be a subscriber, and communicate with me in his own name, to give him every particular, and a full statement of assets and liabilities for the last five years. But I much incline to the opinion that this militia surgeon is, like nine-tenths of the force, a *defaulter* to the funds.

Yours obediently,
M. J. MACCORMACK, Bedfordshire Militia,
Bedford, February, 1864. Secretary to the Militia Surgeons' Society.

To the Editor of THE LANCET.

SIR,—In answer to the question of "A Militia Surgeon," I beg to inform him that a militia surgeon is paid for attendance and medicine on the wives of the staff sergeants, at the rate of 2d. per head per week; but by an order of the Secretary of State for War, he is not called on to attend midwifery cases, unless a midwife or private practitioner cannot possibly be obtained.

I remain, Sir, yours, &c.,
February, 1864. A MILITIA SURGEON OF SOME YEARS' SERVICE.

OWING to pressure of matter, papers and communications from Professor Longmore, Mr. Jardine Murray, and Mr. Spanton, together with several letters, are postponed. We take this opportunity of again impressing on our correspondents the necessity of brevity.

COMMUNICATIONS, LETTERS, &c., have been received from—Prof. Sharpey; Mr. Grainger; Mr. Moore; Mr. Edwards; Dr. Tate, Nottingham; Mr. Bayfield; Mr. Cleard, Ryde, (with enclosure;) Dr. Oliver, Edinburgh; Mr. Carter, Chapel Allerton, (with enclosure;) Mr. Croft, Richmond, (with enclosure;) Mr. Butler, Totnes, (with enclosure;) Mr. Freeman, Banbury, (with enclosure;) Mr. Hale, Preston; Dr. Chessell, Horley; Dr. Morton; Dr. Carson, Coleraine; Mr. Crockett, (with enclosure;) Mr. W. M. Higgins, Abbots Bromley; Mr. Matthew, Preston; Mr. Somerville, Edinburgh; Mr. Moxon, (with enclosure;) Mr. Wrench, Baslow, (with enclosure;) Dr. Rorie, Dundee; Dr. Morgan, Manchester; Mr. Martin, Crawley, (with enclosure;) Mr. Fryer; Dr. Barker, Bedford; Mr. Johnson, Salford, (with enclosure;) Mr. Trevellan, Malton, (with enclosure;) Dr. Bott; Mr. R. Beswick; Dr. Constable; Dr. Latham, Cambridge; Mr. M'Cormack, Bedford; Mr. Hunter, Margate, (with enclosure;) Mr. Langston; Mr. Griffin, Weymouth; Mr. Johnson, Banwell; Messrs. Progley, Hounslow, (with enclosure;) Mr. W. J. Burgess, Bristol; Mr. King, Castleford; Mr. Pratt, Cardiff, (with enclosure;) Mr. Walker, Brill, (with enclosure;) Mr. Baker; Mr. Swain, Rotherham, (with enclosure;) Dr. Bull; Mr. Nicholson, Liverpool; Dr. M'Donald, St. Andrews; Mr. Fisher, Wigan; Mr. Stockwell, Musselburgh; Dr. Black, Chesterfield; Mr. G. Skene, Auchenearn; Dr. Kirkman, Maidstone; Dr. Mumford, Waltham; Mr. Parker, Bath; Mr. C. G. Cartledge, Manchester; Mr. Colman, Kidlington, (with enclosure;) Mr. Adams, Maidstone, (with enclosure;) Mr. Prosser, Bedford; Dr. Fussell, Brighton; Dr. Clarke, Youghal; Mr. R. Davies, Birmingham; Dr. Holman, Reigate, (with enclosure;) Mr. Laird, Birkenhead, (with enclosure;) The President of the Royal College of Physicians of Edinburgh; An Old General Practitioner; Ethnological Society; A Poor-law Medical Officer; A. B., (with enclosure;) Integrity; A Leeds Surgeon; Rus; T. B. W.; &c. &c.